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ABSTRACT

The purpose of this program was to assist faculties in Ontario universities in improving the effectiveness of instructional processes by systematic development of objectives, content, methods, and evaluation for each course offered with economy in the application of instructional resources. The first two chapters of this program report try to set the program against its historical background. The third chapter deals with the operation of individual projects. Chapter 4 examines the broader aspects of the program itself by looking at major successes and failures, the relevance of the program to Ontario universities, and the impact that the program has had in terms of a broad measure of return for effort. Chapter 5 concentrates on the overriding perceptions that were presented in terms of (1) instructional development in the Ontario universities and (2) the methods whereby instructional development might be fostered and improved. Chapter 6 contains recommendations for the future. Appendices contain: (1) more detail on the task and the method of approaching it; (2) a variety of sources outside the province as well as the individual and collective contributions provided by people within the province; (3) and a list of people spoken to. (Author/KE)

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TEACHING AND LEARNING

An evaluation of the Ontario Universities Programme for Instructional Development

U.S. DEPARTMENT OF HEALTH
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

HE007233

SEPTEMBER, 1975

Council of Ontario Universities

TEACHING AND LEARNING

An evaluation of the Ontario Universities Programme for Instructional Development

SEPTEMBER, 1975

75-10

FOREWORD

October, 1975

This is a report of an independent evaluation of the Ontario Universities Programme for Instructional Development, commissioned by the Council of Ontario Universities. The report is being published at this time to emphasize its independent status, and to allow an opportunity for the university community to react prior to review of the report by the Council. Publication of the report does not therefore carry any implication of support of the Council for the recommendations contained therein, since the Council has not yet considered them.

John B. Macdonald.
Executive Director

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September 5, 1975

Dr. J. B. Macdonald,
Executive Director,
Council of Ontario Universities,
130 St. George Street,
Toronto, Ontario.

Dear Dr. Macdonald:

We have now completed the evaluation of the Ontario Universities Programme for Instructional Development and its activities during the period 1973–1975.

We enclose our report, which has attempted not only to assess the success which the Programme has had in achieving its stated and implicit objectives, but also how far these objectives have been in keeping with the aims and intentions of the Ontario universities during the period in question.

It is our belief that our evaluation procedures have reinforced in a number of universities the concern for the improvement of university teaching which should exist at all levels in the institution, and our visits have frequently brought together within the institution for the first time all those who share this concern. In this sense, the evaluation has not been merely a passive observation of processes that exist, but has in itself created a greater awareness about the improvement of those processes.

Because of that feature, and because we know that there are many individuals and organizations in Ontario thinking and feeling deeply about instructional development and the improvement of teaching and learning, it is our expectaion that our report will be widely circulated throughout the province. In this way, the Council of Ontario Universities will discover how our analysis contributes to the future planning of good teaching and learning in the universities of the province.

We hope that the Council will commend our views to the Ontario Council on University Affairs and to the Ministry of Colleges and Universities. Only in this way do we believe that the aspirations of many faculty members and students will be supported and the aims of the Ontario universities to produce enlightened scholars and enthusiastic students will be achieved.

Yours sincerely,
Alex Main
Alwyn Berland
Peter Morand

PREFACE

This report has not been an easy one to prepare. We were first invited to undertake the task in the late spring of 1975 although the submission date for our final report was set for mid-September. Because of a number of other commitments, we were unable to meet to agree upon our methods of working until June, 1975, and our effective period for the collection of data and opinions was confined to July and early August of that year.

Despite these restrictions, we feel that we have very adequately canvassed the information and views about instructional development available in this province and we have gathered a good deal of information about parallel activities in other jurisdictions. We have met with more than 450 people whose views we regard as pertinent to our inquiry. These people have been drawn not only from the universities themselves, but also from government, civil service, interuniversity bodies, other sectors of post-secondary education and from outside post-secondary education.

Our efforts have been very greatly helped by those persons who were nominated by the universities to act as liaison officers for the Ontario Universities Programme for Instructional Development. We owe a great debt to them for arranging, at very short notice, visits to the universities and for the opportunity to meet administrators, faculty and students at a time when so many people were difficult to contact.

We also owe a great deal to the staff of the Council of Ontario Universities for research information and secretarial services without which our work would have been slow and difficult.

In particular, we wish to express our sincere gratitude to Mrs. Kathy Armstrong whose energy, enthusiasm and calm efficiency has been the foundation

stone for our endeavours. Her previous experience in federal and provincial institutions, and her insight into the working of the universities, have contributed to our understanding of the Programme which we undertook to evaluate, and her ready participation in our deliberations ensured that we remained at all times practical and sympathetic in our decisions.

The actual drafting of the report was the work primarily of Professor Alex Main, following a number of discussions among the evaluators on the basic approach of the report and on its recommendations. While the two members of the evaluation team from Ontario might wish to maintain different emphases in exposition and analysis, these in no way affect their unanimous support of the recommendations that follow.

CONTENTS

Foreword		ii
Letter of submission		iii
Preface		iv
Introduction		1
Chapter 1	The Background to the Programme	5
Chapter 2	The Policies and Practices of OUPID	12
Chapter 3	Outcomes: the Funded Projects	25
Chapter 4	Outcomes: the Programmes	38
Chapter 5	A General View	49
Chapter 6	Recommendations	54
Summary of Recommendations		67
Appendix 1	*The Evaluaton Procedure*	71
Appendix 2	*Documents Consulted*	74
Appendix 3	*Informants*	78
Appendix 4	*Grants Awarded*	84
Appendix 5	*The Evaluation Team*	89

INTRODUCTION

We are aware that the purpose of an evaluation is not to prove, but to improve, and we have therefore tried, without altering our terms of reference and without distorting the data which were available to us, to be positive and constructive in this report. During the course of our evaluation, we came across many accounts of human error in the system, many personal biases and many criticisms of individuals. While many of these may have been justified, they do not add constructively to the future planning of instructional development in this province. It is clear to us that many of the criticisms which we might make of individuals are already known to those individuals and they have learnt from mistakes they have made. To bring these to public attention is unlikely to have any additional effect.

We have chosen instead to concentrate when talking about the past on those decisions which point to lessons for the future. If in so doing we mention errors and criticisms, then these will be errors which we believe have arisen because of the way decisions are made within the province, or criticisms which are not directed at individuals but at the system in which they have operated.

Nor, indeed, did our terms of reference invite to us to comment specifically on the role of individuals in the Ontario Universities Programme for Instructional Development. These terms invited us to review the impact of the Programme for Instructional Development and, in particular,

(1) to examine the success of the projects in terms of achieving their stated goals,

(2) to examine student reaction and student performance in relation to course modifications supported by the projects,

(3) to study the distribution of effort by university and discipline and assess the scope of impact of the Programme,

(4) to assess the extent to which Programme funds have resulted in innovation or modification of instructional processes in Ontario universities,

(5) to examine the impact of the Programme on the level of commitment to instructional development in each of the universities,

(6) to consider the extent to which the results of projects have been of value to institutions other than those in which they were conducted,

(7) to consider the extent to which the Programme has produced a cadre of expertise in Ontario universities,

(8) to consider whether there are areas of activity which have been neglected by the Programme and which should receive attention in the future,

9) to evaluate the need for the Programme and the validity of the objectives on which it was instituted,

10) to advise on appropriate future methods of promoting the improvement of instructional processes in Ontario universities.

These terms we accepted in full and our evaluation procedures were structured in keeping with them. The first two chapters of this report try to set the Programme against its historical background, to pinpoint its origins and development, and to outline its policies and practice. The third chapter deals with the first three of our terms of reference which essentially concern the operation of the individual projects. We were conscious from the beginning that it was part of the objective of the Programme for Instructional Development that those who were awarded grants would themselves undertake an examination of the success or failure of their projects and would themselves gather data from students, from colleagues, and from other relevant sources, upon which to evaluate the work which had been funded. Therefore, we did not feel, as evaluators, a compulsion to examine each and every project which had been supported by the Programme in close detail. Rather, we have concentrated on assessing whether or not the Programme has encouraged those who were successful applicants to evaluate their work.

Chapter 4 examines the broader aspects of the Programme itself by looking at major successes and failures, the relevance of the Programme to Ontario universities, and the impact that the Programme has had in terms of a broad measure of return for effort. In this sense, the chapter is structured around items four to seven in our list of terms of reference.

We believe, however, that the key chapters of this document are 5 and 6. In the first of these we concentrate on the overriding perceptions which were presented to us in terms of (a) instructional development in the Ontario universities and (b) the methods whereby instructional development might be fostered and improved. Chapter 6 contains our essential recommendations for the future.

The first of our appendices contains more detail on our task and our method of approaching it, but we feel it worth developing these details also by way of introduction to our report. It was clear to us that of overriding importance in our task was the collection of the perceptions, attitudes and opinions of all those who might have a view about instructional development in the province and about the operation of the Programme in particular. As is explained more fully in Appendix 1, the perceptions of individuals are likely to be of more importance than objective data in this kind of evaluation, for it is the way in which individuals and groups of people react to and value a programme such as this which determines its success or failure. It is also the attitudes and approaches of these same people which will determine whether any recommendations for the future will be accepted or rejected. Much of the data against which to judge the perceptions of those with whom we talked was already available to us in public documentation and in the more private minutes of many organizations which operate in the province. These, together with other documents which we found valuable aids to our thinking, are listed in Appendix 2. Included in this list are documents and reports from a variety of sources outside the province as well as the individual and collective contributions provided to us at our request, or voluntarily, by many people within the province.

Appendix 3 lists those people that we had the opportunity of talking with. They represent many sectors of the university community in Ontario and some non-university sectors of public life. It is clear that while we could not hope to talk to every single individual in the province who might wish to contribute to our thinking about the Programme, we have made very extensive efforts to meet with as many people as possible. The list contains the names of more than 450 people, all of whom gave to us very freely of their time. We are confident that they represent a very fair cross-section of those whose views have been important in the past and whose views will be important in the future of instructional development in the Ontario universities. We believe that they have given us the opportunity of exploring systematically and thoroughly the various themes which published documents and our own evaluation plan suggested to us. Appendix 1 indicates in some more detail the method which we used to systematize the viewpoints expressed to us and to identify important themes for this report.

While we are confident that we have thoroughly explored past decisions and identified the support or opposition which might exist in the province towards certain future actions, we do not believe that the credibility of our report rests on this alone. It rests also upon the judgments which we have made upon the data which we collected. These judgments are those of a team which has been exposed to a great many people who work in and are concerned about the universities in the 1970s. It is above all our interaction with

these people which has led to the recommendations which we make. The art of evaluation exists not in a bland objectivity, but in an informed and sensitive subjectivity. One does not understand a complex, dynamic system by stopping it artificially and dissecting it under the microscope. Understanding comes from observing the system in operation and from interacting dynamically with that system. In attempting to do so, we have been aware that the universities of Ontario are complex in nature and in function. They sustain a heavy responsibility for research and the advancement of knowledge, and for services of many kinds to their communities. It is obvious that instructional development cannot be examined separately from these and other aspects of the university's functions.

It is worth pointing out that there have been constraints and limitations upon our work. Not least of these has been the time at our disposal. The proposal for the evaluation specified that two or three evaluators be appointed including an external consultant who would "carry the burden of investigative work and drafting the report". The other members of the evaluating team were to be senior academics with administrative experience and knowledge of the Ontario university system from which they would be drawn. The deadline for submission of the report was given as September 15, 1975, with the first planning meeting of the evaluators to take place in February, 1975. As it turned out, the evaluating team was able to make certain decisions by correspondence but circumstances prevented a meeting until the middle of June, 1975. The external evaluator was able to work in the province full-time from June 23 until August 30. The two internal evaluators did not have release time from the duties assigned to them by their universities but gave as much time as these other duties allowed during that same period. Travelling to all parts of the province, consulting nearly 500 people, reading and assessing hundreds of documents available to us, and making judgments on all of these in the limited time available to us, has been taxing.

The time limit set upon us has, however, led to an intensity of effort which we believe has caused us to focus upon essentials. We are, as a team, agreed upon these essentials and we are agreed upon our recommendations. The final chapter of our report contains a summary of those recommendations. These we present to all those persons who are concerned about the future of teaching and learning in the universities of Ontario. We believe that they will contribute to informed discussion about the future.

CHAPTER 1

THE BACKGROUND TO THE PROGRAMME

The origins of the Ontario Universities Programme for Instructional Development can largely be traced back to the report produced by Bernard Trotter in 1970 for the Committee on University Affairs and the Committee of Presidents of Universities of Ontario[1] entitled *Television and Technology in University Teaching*.

Trotter had been invited to explore a range of alternative approaches to educational technology and to examine these for their relevance to the Ontario system. Among the many things which his report emphasized was the view that

> It is not profitable to look at any single teaching-learning resource in isolation from others in use or in prospect. We must aim at nothing less than fundamental review of the instructional process. The overriding imperative of technology is system. Any discussion of educational technology must therefore be about the systematization of the educational process. Systematization in turn implies collaborative and collective effort—professionalism of a new and different kind.[2]

To Trotter, the most important feature of any educational system is the way in which student learning can be enhanced by a systematic exploration of the student's learning needs. This in turn demands a systematic approach to pedagogy in the universities. "A much more systematic approach to the problem of curriculum and course development is required. Objectives must be defined, all possible methods must be canvassed and evaluated, including solitary study in the library, as well as applications of technology, and then

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[1]Predecessor to the Council of Ontario Universities.

[2]B. Trotter, *Television and Technology in University Teaching* (Toronto: Committee of Presidents of Universities of Ontario and Committee on University Affairs, 1970), pp. 1–3.

courses must be designed and evaluated [illegible] out that educational technology had not been fully [illegible] universities or in other parts of the educational system [illegible] kept in a compartment separate from other resources for student learning. It urged that educational technology must be brought together with these other resources (the teacher, the student, the library, the laboratory, and the methods by which these resources are used and organized) in an attempt to achieve the specific objectives of the educational process. It was clear that this could not be done by setting up some separate organization or department to supervise. And so it was not surprising that the Commission recommended that we establish a centre for instructional development to serve the universities of Ontario universities in improving the effectiveness of instruction and learning in terms of objectives sought and achieved.

In the light of future developments it is worth quoting [illegible] fully on the purpose of such a centre:

> The centre could [illegible] it would help to train [illegible] this would probably mean providing the means whereby [illegible] train themselves. The centre would also provide [illegible] the universities and colleges with the [illegible] sity basis in approaching the problems of [illegible] propriate mix of resources to be used in [illegible] would also assist in setting up [illegible] faculty. It would be encouraged to study the results of [illegible] of these problems.[3]

The centre suggested by Tromm was a very modest one in terms of organization. He conceived of a [illegible] university in Ontario [illegible] on a full-time or part-time basis. These people continued to receive their salaries from their parent institution and [illegible] located at the centre or who for some [illegible] after the first two or three years of operation of the centre, [illegible] in the province would have a small number of persons associated with the centre, interacting with each other and bringing experience back to their own universities.

By the spring of 1971 the Commission [illegible] principle of establishing a centre for instructional development and by the autumn of that year the Council of Ontario Universities had agreed that a proposal on the structure and financing of a centre should be brought forward and that a joint committee should be established with the Commission on Post-Secondary Affairs to investigate alternatives for new types of university [illegible]

[3]*Ibid* p. 29
[4]*Ibid* p. 54

That Joint Committee in December, 1971, drew up a proposal outlining the implementation of the centre, stressing the arrangement of professional consulting services to departments and interdepartmental groups within individual universities, the assistance to interuniversity discipline groups wishing to develop instructional materials or full courses on a basis consistent with the aims and purposes of the centre, and the training of instructional development consultants in the province. It included in the functions of the centre the establishment of "mission-oriented" research into all aspects of the instructional process in universities. It also invited organizations such as the universities and the Ontario Institute for Studies in Education to submit proposals on the structure, keeping in mind the aims and terms of reference suggested by the Council of Ontario Universities for the centre.

The major development, however, which bears on the history of the Ontario Universities Programme for Instructional Development occurred in August, 1972, when Dr. J. G. Parr, Chairman of the Committee on University Affairs, and Co-Chairman of the Joint Committee, submitted a memorandum to the members of the Joint Committee outlining a different approach to the Programme. He had recently visited the United Kingdom to study developments there and had come back concerned about the difficulties which the British universities were discovering in encouraging teachers to think systematically about curriculum and course design. "If," he asked, "centres of devotees on a university campus, mixing with colleagues, engaging in committee discussions, contributing to the work of teaching departments have difficulties in being accepted, what are the chances of success of a centre for instructional development that is bound to have an added degree of isolation?"

It was clear by this time to the Joint Committee that the proposals from universities about the structure and organization of such a centre were less than satisfactory and the concept had not met with a great deal of enthusiasm. The Joint Committee, in discussion, recognized that the earlier terms of reference had given the centre a directive role in that it would be providing courses and opportunities for faculty rather than encouraging universities and faculty members to provide those opportunities for themselves. It also recognized that it may have placed undue stress on the research aspect of the improvement of teaching. The Council of Ontario Universities was now of the opinion that the original concept of the centre should be revised to reflect a less ambitious scale of operation although many of the ideas discussed in the original version could be retained. The Council of Ontario Universities was particularly enthusiastic about funding universities for faculty release time. As a consequence of these discussions, a revised proposal was discussed by the Joint Committee and by COU late in 1972, and by December, 1972, the Council of Ontario Universities and the Committee on University Affairs had both agreed to a province-wide programme for instructional development, and the Com-

mittee on University Affairs had recommended financial support for such a programme for an initial two-year period.

The purpose of this programme was announced as "to assist faculties in Ontario universities in improving the effectiveness of instructional processes by systematic development of objectives, content, methods and evaluation for each course offered with economy in the application of instructional resources."

The preamble to the report stated: "It is hoped that a substantial number of individual members of faculty with support from the Programme and their own institution will gain experience in instructional development which can be put to profitable use in their own further teaching activities and in assisting colleagues in their own and related disciplines." It was also pointed out that the Programme was not intended or expected to produce immediately visible results, that it would be experimental, and the degree to which it might appear to be serving the stated objectives would have to be assessed after a period of two years before a decision to continue or alter the Programme was made.

The functions of the Programme were now rewritten to stress assistance for instructors to develop teaching programmes using contemporary methods in course design and presentation, and for faculty members to pursue instructional development as an area of study. A stress was also laid on assistance to interuniversity discipline groups which wished to develop instructional materials or full courses on a basis consistent with the aims and purposes of the Programme, and it was agreed that the provision of useful opportunities for graduate students in appropriate disciplines would be part of the Programme's responsibility.

It is worth noting at this point that the Council of Ontario Universities had specifically suggested five features of the Programme:

(1) that it should receive applications from universities rather than from individuals in order to place the onus on the institutions to identify persons and proposals which best fit the objectives of the Programme and the universities,

(2) that the Programme should offer grants on the basis of some form of matching commitment by the university,

(3) that the Programme should be broadened to allow participation by universities, for grants for course team developments, as well as grants especially for faculty members,

(4) that applications should be evaluated on the basis of their likely impact on the university and,

(5) that the Programme should be operated by using the Joint Committee as a body to review and judge applications and that there should not be a designated director for the Programme.

The first four of these proposals were incorporated into the draft finally approved by COU and CUA in December, 1972, but it was agreed that a director was necessary in order to focus the Programme.

The Joint Committee on Educational Technology met for the last time on March 6, 1973, under that title, and from then on became known as the Joint Committee on Instructional Development to emphasize the improvement of teaching rather than the application of technology. At the same meeting, it was agreed that each university president would receive a letter asking for the names of suitable nominees for the position of Director of the Programme. In April, 1973, Dr. Harold Good of Queen's University was appointed as Director and after an initial period during which he visited universities to make the Programme known to members of faculty and to administrators the Joint Sub-Committee was able in the autumn of 1973 to move towards considering the first applications for grants from faculty members in the universities of Ontario.

The evaluation committee has been able to interview most of the persons who were involved in these decisions during 1971, 1972 and 1973, and it has also been fortunate to receive the accounts of perceptions of a large number of people who watched these events but who were not directly involved. Several things emerged which we feel are worth commenting on.

(1) The involvement of Dr. J. G. Parr is something that is commented on by many people in the Ontario university system. It is quite clear that, first as Chairman of the Committee on University Affairs, and then later as Deputy Minister, he played a large role in determining the eventual shape of the Ontario Universities Programme. Many administrators and faculty members see his involvement as implying that the Ministry now has some deeply vested interest in the Ontario Universities Programme. There appear to us to be, at the level of both administration and faculty, many suspicions of the Ministry of Colleges and Universities' involvement in the policies of the universities. Many faculty members did express to us fear that there were moves towards a University of Ontario, something which we discovered to be unacceptable to the large majority of university teachers in the province. This suspicion of centralization of university decision-making, coupled with Dr. Parr's involvement in the Ontario Universities Programme for Instructional Development, means that in many parts of the province the Programme is seen to be a government creation and therefore an attempt by government to influence what universities do to improve the quality of teaching. The Programme is resisted in many quarters because it is seen as an outside effort to abrogate university rights in this direction.

(2) It is also clear that the reduction of the initial proposal for a centre to a more low profile programme has been very acceptable to many people

in the province. First of all, it appears that the Ministry does not fundamentally believe in the provision of a facility before a clear philosophy emerges around which to construct that facility. Also, a centre would have appeared to be more of a Ministry creation than such a programme should have been. It was also clearly more acceptable to the Council of Ontario Universities, in a positive sense, in that the Programme concentrated much more on activity at the individual campus level and involved an element of decentralization which the Council had agreed was desirable. In a more negative aspect, the Council saw the Programme as less of a Ministry-dominated phenomenon. The Programme seems to have been more acceptable as an idea to faculty members since the centre itself was never a grass-roots proposal but was much more a centrally conceived proposal.

(3) It is clear that, by 1973, the Programme was expected to be non-directive. If its philosophy had been enunciated it might have read as follows:

(a) The most important activities in instructional development are those which occur at the grass-roots level.

(b) Release time for university teachers is crucial for the improvement of teaching.

(c) A reduction of teaching-time to allow for reflection results in more effectiveness in the teaching process.

It is worth pointing out at this point, however, that the philosophy was not clearly enunciated and we shall return to this when describing the procedures and processes of the Programme.

(4) The Council of Ontario Universities had clearly stressed the need for an institutional commitment both in terms of the selection of projects to be funded by the Programme and also through matching finances. However, no clear provision was made for the involvement of the universities of Ontario in the decision-making processes of the Programme. The committee which was to organize the Programme was to be the former Joint COU/CUA Committee on Educational Technology, now with a new title and with some new members. The Programme was to be aimed at faculty but with little faculty input into it.

(5) The Programme from the very beginning was not seen as an everlasting one. It was to exist partly to stimulate university activity and partly to focus the attention of individual members of faculty and groups of faculty on the improvement of university teaching. It is clear that the Ministry did not see the Programme as lasting beyond some finite time as yet difficult to determine; indeed the Ministry hoped that the Programme would eventually be phased out into formula-financed activi-

ties. The Council of Ontario Universities, which was unhappy about accepting earmarked funds for one particular activity of the universities, did, however, accept that this might be a way of getting some activities in instructional development started. Its hope also at the time was the Programme would not continue to exist for too long at the provincial level as a separate activity. Finally, various involved faculty members who had made some commitment to instructional development saw it as a short-term activity, as an attempt to raise university consciousness and create within each university an awareness of the need for local programmes of instructional development at the departmental, faculty and university level.

All of these interests therefore combined to launch the Ontario Universities Programme for Instructional Development as a short-lived phenomenon which would foster in the universities a greater appreciation of the teaching and learning needs of both faculty and students. There was implicit in the establishment of the Programme an assumption that outside funds are needed—or were needed at that time—to encourage faculty members and universities to examine in a special way those activities and processes which they might be expected to examine and re-examine as a matter of course. It is now widely accepted in commercial and public life as well as in many educational circles that continual evaluation and modification of procedures is the only way that a system can continue to meet the needs of those whom it serves. The establishment of the Ontario Universities Programme for Inst uctional Development with outside funding was clearly an attempt to extend this philosophy to the universities of the province.

CHAPTER 2

OUPID'S POLICIES AND PRACTICES

"The aim of the Programme is to assist individual faculty members in Ontario universities and the universities themselves in improving the effectiveness and efficiency of their instructional processes. No approach consistent with this aim—whether concerned with the contribution of students, the organization of teacher time, the demands of research and administration, or the use of technical devices such as television or computers—is regarded as outside the scope of the Programme."

So did the COU *Monthly Review* in June, 1973, announce the terms under which the Programme was to operate. It is against the background of such an aim that we shall in this chapter examine certain features of OUPID:

(1) the general strategy adopted to meet the objectives
(2) the role and function of the programme committee
(3) the role of the director
(4) the granting procedure
(5) the liaison with the universities
(6) communication and information

In the next chapter we shall try to assess the projects which were funded against the same background aim.

STRATEGY

The most clearly articulated feature of OUPID is its philosophy on awarding grants to individuals and to groups. In his interim report of September, 1974, the Programme Director, Dr. Harold Good, highlighted the Trotter Report's diagnosis of inadequate planning of educational change in the universities.

The reasons were seen to be:

(1) a shortage of staff who have given attention to critical and systematic design of courses,

(2) a lack of the incentives or resources to induce staff to embark on systematically planned projects,

(3) a lack of institutional support to give incentives, resources and, above all, adequate continuity,

(4) a general deficiency in the province of persons who could be said to be students of the strategies and management of instructional systems and who could act as consultants.

Harold Good went on to say, "in choosing a general strategy, the Joint Committee decided that the various problems which it wished to tackle could, at least in principle, be attacked through a grants system. If the grants were awarded on the basis of very critically argued briefs, if the funds were to a considerable extent provided for release time (to make it possible for teachers to study relevant background material) and if a considerable measure of institutional support in the form of roughly matching resources, were provided, then the process should work towards resolving the problems listed above."

There is no doubt, reading this report and the relevant minutes of the Joint Committee, that the Programme addressed itself to the problems raised in the Trotter Report and that it directed itself to foster educational change and innovation as a primary strategy. Indeed, in the November, 1974, *OUPID Newsletter*, the Director reported that in keeping with this approach "the grants have tended to be awarded for projects which serve as a exercise in and example of, systematic redevelopment."

Our investigations have discovered a number of criticisms of this strategy for instructional development in Ontario. We must stress at this point that we are not discussing the effectiveness of the strategy: that is something for chapter 4. We are, rather, highlighting ways in which this strategy was regarded by some people as inappropriate.

(1) The strategy puts emphasis on the individual rather than on the departmental, faculty or university unit. It therefore treats the individual in some isolation, as a solitary teacher rather than as a member of a team. It may therefore be assumed that whatever effects which grants for innovation to one individual may have, other mechanisms may have to be used to ensure that this effect spreads to other university teachers. There is inherent in the written and unwritten articles of faith of OUPID, a strong belief in the "ripple" effect, and there is no small amount of belief in the idea that one individual in a team or faculty, working on a small teaching project, will have some positive effects upon the attitudes of many people around him. OUPID seems to have

been established on this principle without specific instances being cited in support.

(2) As a corollary to the first, an emphasis upon the individual will probably leave little room for central direction from the Programme. It is likely that the Programme built upon individual grants will lack cohesion and will find itself responding to a large amount of varied pressures for support in totally different directions. Such a programme would require very strong and very consistent leadership to prevent its spreading itself too thinly. It would also need very effective research and information servicing in order to relate its granting policy accurately to provincial or national needs.

(3) As a further corollary, emphasis on the individual may well give rise to "grantsmanship" of two kinds. First of all, it may provide support only for those people who are already able to write promising grant applications: in other words, those people who give evidence of attitudes and teaching practices which are already very much in keeping with the objectives which the Programme wishes to achieve. But secondly, it may encourage individuals to invent "busy work" for the sake of the grant rather than for instructional development.

(4) A granting system is likely to neglect a large number of more direct aids to the improvement of university teaching and learning such as courses of training for university teachers, workshops, seminars and other activities designed to raise the level of critical thinking about teaching, programmes of assistance to students on methods of study, and so on. It is also less likely than a more directly intervening system to foster activities which are favoured by students. It is always likely to be a teacher-oriented programme.

(5) Such a programme will not be focused enough on the universities; it will not give them an opportunity to contribute to the Programme's thinking. It is unlikely to encourage a degree of control by the universities and it might indeed, prevent the universities themselves from using resources for instructional development. Such a criticism implies that it is individual universities, as the organizational unit for teaching and learning, which must themselves be responsible for encouraging, planning and supporting efforts at the improvement of teaching and learning. Offering grants to individuals or to groups within these separate institutions may not only abrogate the responsibility of the institution, but may also encourage delinquency by that institution.

(6) The distribution of resources to individualized, privatized projects would lead to fragmentation of the Programme's purpose. Spreading resources across as many university faculties and types of projects as possible, would all seem to serve some kind of ideal of justice, which is ulti-

mately nonsense. All instructional development is important, but there are certain features which are more important than others. Deliberate time and effort and budget should be devoted to creating in each university an idea of academic community to counteract the dehumanization of the university enterprise. Instructional development should be a therapy for the major ills of the academic community and should concern itself with large scale human values, rather than with specific instructional processes. No form of small scale granting strategy could hope to achieve this.

Our investigation revealed a number of counter arguments which strongly favoured the strategy adopted by OUPID:

(1) Such a scheme caters for spontaneity in the system. This in itself is a human value which needs encouraging at all times.

(2) The awarding of grants for specific instructional development activities contributes a new element to the reward structure within the universities and specifically in the profession of university teaching, within a system where it is strongly believed that research output brings with it many more rewards than devotion to teaching. Anything which rewards the devotion of the teacher and innovator will swing the balance ever so slightly in favour of equity. Such a contribution is particularly welcome at this time, for it rewards people who would not obtain resources or funds for this kind of work in a time of recession. It serves to give their work a higher priority.

(3) Funds and recognition coming from outside the university or from outside the faculty, or department lend credibility to an individual for his efforts. What is recognized outside today may be recognized within the department tomorrow.

(4) Such a strategy is likely to encourage in the universities, and between them, those activities which are not normally of high priority within the normal budget. These would include interuniversity projects, projects which are not based in normal teaching departments, and projects whose outcome is very doubtful indeed.

(5) Most areas of academic endeavour have granting bodies which will lend support to developments and innovations within the field. That of post-secondary instruction does not; therefore, a granting system in this area is desirable.

(6) A granting system can be abolished more quickly than any other central support for instructional development. Once universities could begin to sponsor for themselves those measures aimed at the improvement of teaching and learning, the granting system can be demolished overnight.

All our sources of data are agreed that a granting system such as OUPID has a tendency to add a research component to teaching. Our sources, however, are not agreed upon the desirability of this tendency. For some, it is good. It adds credibility; it equates research into teaching with other forms of research which are held in high esteem by the university community. For others, however, it is bad. The system is likely to generate research which has been done before, research which is not applied directly to the teaching situation, and research which occupies teaching time and therefore directly disadvantages students.

THE PROGRAMME COMMITTEE

The Interim Committee for Instructional Development and its predecessor, the Joint Committee, were the subject of many conversations which we had during our visits to universities. It is quite clear that while the Joint Commitee was selected to represent groups which had some kind of former interest in instructional development, the individuals were not selected because of any expertise in the area. Indeed, one person who was very closely involved in the selection of the original membership indicated to us that it was quite intentional not to have on the Committee anyone who was actively involved in instructional development. Very few people could tell us who was currently serving on the Interim Committee or the names of any person who had previously served on the Joint Committee. Almost all of the people we talked to in the province felt it would have been better to have had a broad university basis for membership of the Committee, or to have a small group of those people very actively involved in instructional development at the campus level. It is quite clear, talking to university administrators, that the structure of the Committee did not strengthen the universities' feeling of direct responsibility for the Programme or for instructional development generated by the Programme. It is clear too, talking with faculty members who had been supported by the Programme or who had had applications turned down, that the Committee was seen from outside as needing to learn a good deal about the business it had chosen to become involved with. It was often represented to us as not understanding the applications which had been presented to it, and most of the people whom we could find who had the opportunity of meeting the Committee as a group described it as lacking an awareness of the real problems of improving the instructional process and of being naive in its assumptions. This view was in fact supported by some of the members of the Joint Committee with whom we spoke. It was certainly one of the most common opinions expressed during our investigation that the Joint Committee on Instructional Development was composed of people who had very little teaching experience.

It is very clear to us that the Joint Committee and its successor have not been very self-conscious about this lack of experience or expertise. Early on,

the view was expressed, both by Dr. Parr and by one of the chairmen of the Joint Committee, that the Director was much more important than the Committee, that greater reliance should be placed upon the judgment and the experience of the Director and that the Committee was very much a sounding board for the Director's ideas. This was an assumption based on a sure knowledge that the Joint Committee did not have to debate fundamental issues or issues of policy. It is clear to us that the Committee never wished to wrest from its two parent bodies the responsibility for policy-making. For its first year in operation, it chose to allow the nature of the applications and the wisdom of the Director to dictate the granting policy. The Joint Committee made a statement of policy only when it realized that it did not have at its disposal enough committee time or staff time to discuss each application in detail with its originators. Only when it discovered that its constituents required some clear statement of policy, did it offer guidance and direction.

There were some issues, however, on which it would not offer direction. The very clear and direct statement contained in Harold Good's paper, "Instructional Development, What, Why and Wherefore", was published as a personal statement by the Director after the Committee declined to endorse it as a statement of the Programme's aims and policies. It is still not clear whether the members of the Committee endorsed his personal views, since there is nowhere any record of a Committee debate on fundamental issues and policies. This, in all likelihood, is because no such debate ever did take place in the Committee.

THE DIRECTOR

Because of the structure and attitudes of the Joint Committee, and the passive endorsement of these attitudes by its successor, the role of Director of the Ontario Universities Programme for Instructional Development has been a crucial one.

It had originally been suggested in keeping with the desire for a low profile of the operation that there was no need for a Director and that the Committee itself could administer whatever grants were distributed by the Programme. When the Programme was set up, while it was agreed that a full-time member of staff was required to administer the Programme, there was a great reluctance to give him any full-time assistance. As a result the Director had to look after the administration of grant applications, the administration of the granting procedure itself, the calling of Committee meetings and the servicing of that Committee, all public relations, publicity, and information aspects of the Programme, links with other organizations both in and outside the province who were concerned with instructional development, links with the Ministry of Colleges and Universities, the Council of Ontario Universities, and so on. To

do all these things, and at the same time regularly visit universities to discover what current problems were faced by teachers and students, to visit grantees to talk with them about the progress of their projects, to visit potential applicants and talk over their difficulties in drafting proposals—together, these constituted an impossible task.

In its first Director, the Committee was fortunate to have a man deeply devoted to the cause of instructional development and one very concerned about interuniversity cooperation. His efforts to give the Programme credibility were too often hampered by the enormity of the task, and the lack of help which he was given. There is every indication from our discussions with members of the Committee, with the Director himself, and with those who were close to both, that the Committee's lack of policy about the Director's role and its reliance upon him to structure the events, did not assist him in his administrative, operational or informational roles. The effects of this we shall examine more carefully in chapter four.

GRANTING PROCEDURE

The way in which OUPID decided to award grants to individuals was the subject of many discussions on our visits to universities. Not one of the people that we interviewed was entirely complimentary about the way in which the Committee had proceeded. Among the most serious of the criticisms and those which were most frequently repeated to us, were the following:

(1) The Programme Committee served as its own grant awarding committee, although its competence in instructional development must be specially questioned in terms of evaluating grant proposals. This criticism was offered by those who believed implicitly in the notion of peer evaluation of proposals, as is practised by major funding bodies throughout the world. There were many individuals in the province who were ignorant of the membership of the Committee or of the granting procedure, but made the assumption that a peer evaluation process took place. At least one member of the Committee defended the procedure on the grounds that it is impossible to define who constitutes the body of equals for someone who is making a proposal in the field of instructional development. It was argued that a committee which had clear criteria against which to judge each proposal, however that committee was composed, would discharge its duties to the university community equally well. That defence, however, seems to us suspect because of the next criticism which was frequently levelled at the Programme.

(2) The criteria published by the Programme were extremely vague and did not give a clear indication to the university population of what constituted acceptable projects or activities within the scope of the Programme. This seems to have been especially marked in the first

year of the Programme's operation. We have already referred to the fact that the Joint Committee did not wish to pre-empt the kind of proposals which might come forward, nor to predetermine the kind of projects which could be supported and therefore did not publish a list of criteria. The first public notice of the Programme which went to universities, and which we have quoted earlier in this chapter, indicated that nothing would be barred from consideration, whether it be money, time or equipment.

Equally, there was no form of application which indicated the way in which a proposal might be framed, and there was no note of guidance to potential applicants which might give any further information than that which was already available in the COU *Monthly Review*. The first Director of the Programme, furthermore, has indicated to us that it was part of the basic philosophy of the Programme that applicants should not be assisted in writing applications. This would have given the Programme a directive role and would have prevented the Committee from identifying those projects which were likely to succeed because they demonstrated a certain grasp of fundamental instructional development principles.

Several of those closely concerned with the Programme referred us to the fact that after that first year, when the Committee realized that it needed to clarify the criteria to avoid confusion and possible misjudgment, the *OUPID Newsletter* contained details of the criteria which the Committee intended henceforth to apply. It has been our finding that faculty members in the province remained confused and we were often informed that these published criteria were vague and meaningless and did not assist in the formulation of grant proposals.

(3) The criteria which were enunciated were not inviolable and were not a clear guide to the Committee, nor to universities about the kind of proposal which might be acceptable. Those who were aware of the features which the Council of Ontario Universities had built into the Programme, namely that universities should have some opportunity of expressing priorities for instructional development activities and that there ought to be some measure of matching support from the institutions, were able to point out that these were not always observed. Similarly, those who had read clearly in the *OUPID Newsletter* that requests for equipment and materials would not be acceptable, were able to question the extensive material component in grants for computer-aided instruction.

(4) The application process was not demanding, and therefore, probably not discriminating enough. Many of those who had been awarded grants by the Programme, and of those who had been turned down, reported to

us that after lodging their requests for funding, they had no conversations and no correspondence with the Director, other than an acknowledgement. No critical questions were asked about the nature of the work proposed, nor of the levels of funding. Similarly, liaison officers reported to us that they were seldom involved in detailed discussion of the applicability of a proposed project for the university. One grantee volunteered that had he not originally prepared an application along broadly similar lines for the research fund of the Ministry of Education, he would never have read the background literature, nor discovered what parallel work other people were doing in the province, in Canada and in other countries, and therefore would have been at great risk of duplicating other work and, much worse, of duplicating the errors made by other people elsewhere.

(5) The granting procedure was not public. We certainly discovered many myths about the way in which OUPID evaluated proposals and reached decisions about funding levels. Our investigations show that in the first year of the Programme, no clear criteria were enunciated even for the Committee's own private use. In that year, a small number of proposals were received and all of the application letters were seen by all members of the Joint Committee. Each member of the Committee carried out his or her own rating procedures and drew to the attention of the other members, at a special grants meeting, those which he or she was most willing to support. A general consensus was reached. In the following year, more than one hundred grant applications were received and the Director asked the Committee for the right to structure an advisory panel. Two members of faculty, from different universities, assisted the Director in rating the applications on a ten-point scale against each of the criteria that had been constructed to judge the projects. This they did separately, then summed the ratings, met together and spent considerable time debating these judgments. The Committee then received all of the applications and all of the ratings and was given an opportunity to challenge the ratings that had been given. Full debate was allowed on any application that had the support of at least one member of the Committee, and in this way consensus was eventually reached. During the third granting exercise, with a much bigger number, the Director and the Director-elect prepared full details of the projects for the Committee. On the basis of previous experience of project operation, they prepared four lists. First of all, those which clearly needed support, presumably projects which were supported by the university, were viable in themselves and of value to the system; secondly, those that merited support, but which could not, in any sense, be regarded as supplanting those on the first list; thirdly, those which

were rejected, although they had some merit, and which should return to the drawing board for further consideration; and finally, those which would be rejected totally, since they had no merit whatsoever. The Committee was able to question the allocation of any project to any list and two full days of Committee meetings were devoted to reaching consensus on those which would receive support for the current financial year.

As we have said, there were many myths and there was much misinformation about the procedures adopted by the Committee since they were not public. But those who did know something of the procedure pointed to several critical questions:

(a) What were the special qualifications of the members of the Advisory Panel?

(b) Was there any arbitrary cut-off point on the scales used for the first evaluation of projects?

(c) Why were the originators of projects which were considered to be in need of redesign not given a prior opportunity to carry out that redesign in order to meet the criteria more effectively?

(d) If there were different reasons for rejecting applications, why did all unsuccessful applicants receive the same letter of rejection indicating that there had not been enough money to support all projects? Why, in other words, did the Programme not perform an educational function in giving full feedback to those whom it could not support?

(6) The timing of the grants procedure was not the best for Ontario universities to make full use of the Programme. Certainly, in the first year of operation, the Director had been appointed too late for an early start to be made in encouraging grant applications. But in subsequent years, the Committee called for and made decisions about project funding in May, a date that was too late for many universities to effectively release time to those who had been granted funds. By that time, many departments had allocated duties for the forthcoming academic year and it was impossible for many members of faculty to undertake any considerable commitment of their own time to an OUPID-funded project. This sometimes made the situation very difficult for administrators and for chairmen of departments and it most certainly contributed to a feature which we shall describe more fully in the next chapter—namely, the use of hired help to assist in OUPID projects rather than the release time of faculty members themselves.

It is clear that the granting procedure has been one of the most critical areas for OUPID and one which may have had a serious effect on instructional development in the province. As was pointed out to us by several people,

instructional development in Ontario is in a fragile state. It needs all the positive support which can be mustered in its aid. Those individuals who develop a commitment to instructional development may be easily frustrated and their enthusiasm turned into sourness. To become dedicated to a proposed project and to have it turned down on criteria which are either unexplained or inexplicable, may be very antagonizing. Many of those with whom we talked about failure to secure an OUPID grant admitted to feelings of distrust of the Programme and uncertainty about their own future involvement in efforts to improve their own teaching in any formal sense.

LIAISON WITH UNIVERSITIES

The Programme's original contact with the universities in the province came about in two ways. First of all, shortly after his appointment, the Director travelled to each of the universities and made it publicly known that he wished to meet on the campus with anyone who had any views to express about instructional development or the working of the Programme. Then, later in the first year of operation, the Director invited simultaneously the administration of each university, the faculty association and the student body to nominate representatives to attend an initial exploratory meeting to discuss the forms of instructional development programmes and projects which might be acceptable and useful in the province. It is fairly clear from our discussions with many of the people so involved that the Programme did not achieve, by that means, any real contact with functionally important persons on each campus. It had not, for instance, made any working contacts with a substantial number of heads of teaching departments who are crucially involved in discussions about staff time, staff effort and in the construction of the teaching programme. Initially, the majority of contacts were with individuals who were either already committed to instructional development activity, or who had shown an interest when the Programme had been launched.

It is clear that the number of such interested and committed persons was increased by the publication of the *OUPID Newsletter* and although we heard many criticisms about its shape, its form and its distribution, it clearly assisted in the early days of the Programme to bring the attention of potential supporters and applicants to the Programme and its objectives.

The links which the Programme has been able to develop with the universities have been very dependent on the appointment of a liaison officer on each campus. There have been some difficulties, however, in these appointments. First of all, the selection has largely been made by the university, and in some instances, the seniority and standing of the liaison officer has appeared to have been more important than his commitment to instructional development. In other instances a person has been appointed who has effectively no facilities

or services at his disposal within the university, and therefore has found it very difficult to perform the duties in more than a peremptory fashion, or sometimes even to find out what his duties should be.

The Programme has attempted from time to time to bring together the liaison officers, to obtain feedback on instructional development on the campuses and to inform the liaison officers about the progress of the Programme's work. The function of the liaison officers, however, has not always been entirely clear. It is uncertain how far they have been required to scrutinize applications for grants or to advise on the form of the application or on the nature of the project, how far they have been expected to keep an eye on the progress of the project, and how far they should perform the duty of informing the Director about difficulties encountered in carrying out the proposed work. Similarly, it has not been at all clear whether the liaison officers were intended simply to provide links with a central programme, or whether they were also to become the focus points for all efforts at the campus level to improve teaching and learning. In certain instances, the liaison officers do both; sometimes by their own choice, sometimes by the specific wish of the university, sometimes with time and resources at their disposal, sometimes only out of good will.

The role of liaison officer has never been fully described in any public document, nor has it been fully described to those individuals who hold the office. Their exact position, functions and responsibilities remain a mystery to many people in the Ontario universities. That many of them provide a very useful service to faculty members in the universities may be as much a function of individual personality as it is of their appointment to serve the Programme.

COMMUNICATION AND INFORMATION

"Instructional Development everywhere is bugged by a language barrier that turns people off. One is bound to be uncertain of a system which uses hidden language." This statement from a faculty member not only reflects the task which OUPID was faced with in the province, but it unfortunately also reflects a view that is common even as the Programme enters its third full year of operation.

We have heard frequent criticisms of the Programme's communications and public relations. Many people complained that they could not point anywhere to a clear, unambigious statement about the nature and process of instructional development, or to clear definitions of the objectives of the Programme. Second, we heard too often the complaint that the Programme did not fully inform its public about the grants which it had given, the progress that was being made with the money provided, and how further information might be obtained. Third, a very large number of our contacts knew of no efforts to disseminate the results of completed projects and thus make the benefits available to a wider

audience. Indeed, most of the grantees whom we interviewed were unaware of any commitment to make known the results of their work.

The objectives of the Programme have not been served well by its communication or by its information policy. But there can be no doubt that these are functions which, together with all the other administrative and academic duties of the Director, were heaped too liberally upon one man who had no technical or information resources at his disposal. We could find little evidence of universities, organizations or individuals in the province offering substantial assistance to the Director in this very difficult task. While many of the liaison officers did more than was asked of them, their own time and resources were, in most instances, very limited.

The fact that the Ontario Universities Programme for Instructional Development is known, at least in name, to a substantial number of faculty in the province reflects the genuine commitment of a substantial minority of faculty members. It also indicates that even a low key, low profile, centralized programme can generate a public face. Many of the criticisms which we heard about its communications were set against high standards and expectations, such as one might witness in an organization with more funds and more resources at its disposal.

CHAPTER 3

OUTCOMES: THE FUNDED PROJECTS

In this chapter we shall examine the projects which were funded by the Programme. Three of our terms of reference specifically refer to these:

(1) to examine the success of the projects in terms of achieving their stated goals,

(2) to examine student reaction and student performance in relation to course modifications supported by the projects, and

(3) to study the distribution of effort by university and discipline and assess the scope of impact of the Programme.

OUPID set out to foster and encourage a more critical and more systematic approach to teaching and learning in the universities. It is part of that systematic approach that the teacher clearly states his goals and himself makes arrangements for assessing whether the goals have been reached. It would also be a natural part of the activity of any teacher engaged in systematic change to examine student reaction and student performance in relation to the modification which he has carried out.

We felt it would be both a duplication of effort and a denial of the purposes of the Programme if we were to examine the projects in detail in these terms. In addition, the time at our disposal did not allow an in-depth evaluation of each of sixty projects and we were conscious that such an evaluation would be difficult, if not impossible, during the summer months when the courses which had been modified by Programme monies were not running and the students whose reaction we might observe were not present in the universities. We chose, therefore, to examine two things: (1) how far the Programme has encouraged the proper evaluation of all modifications and changes attempted,

and (2) how far those students with whom we talked were aware of the existence of the Programme and of the efforts which individual faculty members were making to improve teaching and learning with support from the Programme.

PROJECT EVALUATION

Where we discovered evidence of a thorough evaluation of the learning effects and the attitude changes that had resulted from a particular project, we discovered also that this evaluation had been only passively encouraged by the Programme. OUPID intended to award grants "on the basis of very critically argued briefs" and there is no doubt that the selection process carried out by the Committee did identify from the large number of applications received a certain number which were based on very soundly argued principles. But, as we have shown in the previous chapter, the Programme did little to encourage the redesign of those which were not so presented. Indeed, we interviewed successful applicants who believed that they had submitted very badly planned and very badly conceived proposals.

We discovered that a number of projects had carefully planned evaluation studies built into the fabric of the proposal itself; but we also discovered that the majority of project applications had only the barest outline of an evaluation procedure. As far as we can tell from talking with grantees and with members of the Committee, and from the examination of minutes and of documents, no consistent attempt was made to heighten the awareness of the evaluation component in any of the projects which were supported. There is evidence that one or two projects which had generated specific teaching materials were extended on supplementary grants to allow a full evaluation of the use of the materials.

It therefore appears to us that the Programme did recognize and encourage a number of projects which were systematically designed and evaluated, but did so in a passive way in that there already were members of faculty in the Ontario universities who were aware of the fundamental principles of systematic evaluation. In no active way did the Programme encourage a developing awareness of such systematic approaches despite the Programme's public statements about its efforts to this end. We cannot rule out the possibility that there may have been some individuals who, upon reading the Programme's statements about systematic design and evaluation, may have read further and been influenced by what they had read in the educational literature. But this is something which is very difficult for us to measure.

We must also note that the summer of 1975 was perhaps not the best time at which to examine how far the OUPID-funded projects were self-evaluating. We could look only at the intentions expressed in this direction in the written

applications or the intentions expressed to us verbally by those whom we met, since many of the projects are still in a fairly elementary stage where effects are not yet noticeable, and where evaluation of results would be inappropriate. There is no doubt that many of those involved in making changes in their own teaching do constantly monitor, in a general way, the results of their activities, but we could not find real evidence of systematic observation of educational, motivational or social effects.

STUDENT REACTION

Many members of faculty with whom we talked had indicated to us that students had taken a genuine interest in their particular projects and had expressed a good deal of interest in contributing to the success of the projects. It is our impression, after talking with students, that this is some sort of Hawthorne effect. We formed the impression that students are so seldom conscious of being at the receiving end of any kind of educational experiment that almost any change in the teaching environment is likely to be enthusiastically welcomed by them. We certainly discovered that where a project is student-centred and is very fully explained to the student body, it will be well received.

Students we interviewed were by and large not very complimentary about the quality of undergraduate teaching in the universities in Ontario. We frequently heard complaints about the very small amount of time which faculty members spend with undergraduates, particularly at the introductory course level. It would appear that the tendency to staff introductory and second-level courses with graduate students and junior members of faculty, or to teach these courses in very large sections, contributes to the students' image of their teachers as essentially research and scholarship oriented.

Student evaluation of teaching, where it is designed to affect the quality of teaching in the university, is fed in some way into the promotion and tenure procedures. But students were fairly quick to point out that there is no direct link between their evaluation of their teachers and procedures designed to improve the quality of teaching. Where evaluation of this sort leads to improvement, it is because of the interest and the good will of faculty members who respond favourably to student opinion. No university seems to have a formal system of linking student evaluation and instructional development. If we came away from our meetings with students with a clear message, it was that instructional development needs, as a prerequisite, some form of systematic evaluation of teaching which can help identify weaknesses and deficiencies both in teachers and in their courses. Further, the message was students felt that evaluation of teaching is sterile as an end in itself. It must lead to well thought-out procedures whereby a professor who comes to recognize his defi-

ciencies can call upon resources and skill and support within his university to rectify them.

THE PATTERN OF GRANTS

We must now turn to an examination of the distribution of grants by university, by discipline and by the type of project In this way, we can further illustrate the principles behind the Ontario Universities Programme and we can, at the same time, point some lessons for the support of instructional development in the province.

Examination of the distribution of grants across the universities tells us not only about the equity with which grants were distributed, but it may well be a reflection upon the level of activity in instructional development within each university and on the commitment of universities to the Programme and its method of operation.

Table 1
Number of Projects Funded

Brock	1
Carleton	3
Guelph	4
Lakehead	2
Laurentian	3
McMaster	3
Ottawa	5
Queen's	8
Toronto	12
Trent	2
Waterloo	3
Western	4
Wilfrid Laurier	0
Windsor	1
York	4
Interuniversity projects	5
Total:	60

It is interesting that this distribution relates fairly closely to a number of other indices available for the universities in the province. As a rough guide, the rank order correlations (Spearman's rho) between this list and figures provided by the Committee of Finance Officers in the universities of Ontario for the fiscal year ended April 30, 1974, look as follows:

With Total BIU Entitlement	0.75
With Academic Salaries	0.83
With Student Services	0.77
With Library Expenditure	0.82

These provide indirect measures of the way in which the granting policy of OUPID reflects the total student numbers in each university, the total number of faculty and the expenditure which the universities devote to student facilities, teaching and scholarship. The correlation with total operating expenses on all headings of instruction and research is 0.83.

The two features of the distribution of grants which significantly account for this correlation being less than unity are (a) Wilfrid Laurier (with no grants at all) ranks bottom on the grants list, but is consistently in a higher position on lists relating to university expenditure, and (b) Queen's University, which is second only to Toronto in the number of grants awarded, is consistently positioned sixth on almost all heads of university expenditure.

The reasons for these two significant departures we are able to give. Wilfrid Laurier University had submitted a number of projects for the Programme in its very first granting exercise. These however had been for equipment and had been turned down. The University had not been aware that equipment applications would not be funded by the Programme and it seems that this misunderstanding led to a cool period in the relationships between the University and the Programme. Since then (as we discovered in our visit to the university) faculty have been impressed by the need to raise the university's research and scholarship reputation, and the prevailing ethos in the institution does not encourage more concern with teaching, although there is a small *ad hoc* voluntary committee concerned with teaching and the improvement of learning. This body has no official standing in the University and has not been able to undertake any substantial activity in the field of instructional development. No further applications were received by the Programme since that first round and the post of liaison officer, which is attached to the Office of the President, has not been very actively pursued.

In the second case, we could find no evidence that there had been any positive discrimination in favour of Queen's University. It appears that although the Director and the Chairman of the Joint Committee were both based at Queen's University and the Programme operated from the office there, all those concerned had made very deliberate efforts not to develop an instructional development "presence" at the University more than anywhere else. We were struck, however, by the fact that many members of faculty in the University were aware that the Director of the Programme functioned from a building in the centre of the University and had close contacts with the administration

of Queen's. The Chairman of the Joint Committee is also a very well known figure in the University and his interest in instructional development had made some impact on the campus. It would therefore appear that faculty in that university were much more aware of the Programme, its scope and aims, and probably knew better from conversations and contact with the Director how to make an application and what sort of application might be acceptable.

The other interesting feature of the distribution is the number of inter-university projects. Those listed here were set up as a result of a joint application by a number of people in separate universities. Included in the other 55 grants, there are of course, projects which ultimately will be interuniversity in the sense that positive efforts are already being made to ensure that materials prepared or techniques learned in one project may be transferred to other universities. The five listed here are, however, projects which demand a great deal of coordination and a good deal of extra effort by all the individuals involved. Given that the starting philosophy of the programme, which was strongly supported by the Council of Ontario Universities, stressed interuniversity co-operation, it is encouraging that nearly ten percent of the grants were directly for this purpose. That there are not more is not an indication of neglect by the Programme; it is rather an indication that truly interuniversity cooperative projects demand release time in several universities and this is not always easy to arrange. We must point out, however, that OUPID's stress on contact with individuals rather than with universities on an official level, makes it difficult to generate truly interuniversity projects; it becomes at that level, a matter of relying on the chance meeting of likeminded people.

After noticing the correlation between the distribution of grants by university and the distribution of income and expenditure across universities, we were interested that some members of the Joint Committee reported that there was some bias in the distribution of grants to the universities. But the reason for their perception was that on the initial round of grants in the first year of operation of the Programme there were indeed six universities which did not apply for grants and three universities which, for their size, produced a very large number of applications. The Committee was therefore aware, at that point, that there were some universities which were already doing good work in instructional development before the Programme was set up, and as a result, had proposals all ready by the time advertisement had been made.

It is striking that at that time, the universities of Guelph, McMaster and Western received the same number of grants as the much larger University of Toronto. We shall comment again on the level of activity in instructional development in different universities in the next chapter.

Table 2
Distribution of Grants
by Discipline of Applicant

Mathematics	7
Physical Sciences	9
Social Sciences	11
Life Sciences	5
Engineering	8
Health Sciences	4
Law	1
Physical Education	1
Humanities	9
Non-departmental	5
Total:	60

Several comments on this table are in order.

(1) We have been told by many faculty members in the humanities that the systematic approach enunciated by OUPID did not appeal to many people in the humanities, who regarded it as being much more an approach compatible with science and applied science education. We think it worth pointing out that the figures belie this belief, since nine projects were awarded to faculty in the humanities; included are some well planned, well organized and potentially well evaluated studies which involve the preparation of teaching materials and computer-aided instruction.

(2) The number of grants in the social sciences is inflated by the fact that three of the grantees were given assistance for projects which were essentially part of a general university service, such as consultancy on teaching skills or study methods. Where such central services exist, either at university or at faculty level, social scientists, particularly psychologists, tend to be involved and the Programme recognized this in its distribution of grants.

(3) The five grants listed under Non-departmental are an indication that not only faculty members but administrators and service staff in universities have shown an interest in instructional development. It has been possible for those who are not themselves full-time teachers in the university to generate projects which are essentially concerned with the improvement of teaching. The grants in this area include support

for diagnostic and remedial programmes for basic learning skills and for workshops and other activities relating to teaching skills or teaching methods.

Table 3
Distribution of Grants Across Different Instructional Development Activities

A. Types of Teaching:		7
First-year courses	4	
Off-campus courses	2	
Modularized instruction	1	
B. Teaching Methods:		18
Self-based instruction	8	
Computer-aided instruction	9	
Group problem-solving	1	
Open University materials	1	
C. Production of Instructional Materials:		7
D. Course Design and Curriculum Development:		8
E. Diagnostic and Remedial Programmes:		4
F. Sponsoring of Conferences, Workshops, Seminars, etc.:		5
G. Release Time and Travel:		12
Total:		61

(Note that this list does not total consistently with Tables 1 and 2 nor do internal totals, since some projects have been classified into more than one group.)

It is significant that a large number of grants were awarded for release time and for travel. From the beginning, the Programme made the assumption that great benefits might accrue from offering release time to those members of faculty who wished to improve their teaching or instructional methods. Certainly as the Programme developed, and after the return of the Director from a visit to the United Kingdom, more emphasis sems to have been placed on personnel development which resulted in a significant increase in the number of grants given specifically for travel to pick up experience in other centres, or in other jurisdictions. The use of release time in many of the projects has been much less than was originally hoped, because of technical difficulties in arranging fully for release time in many faculties or departments. It is there-

fore significant that, under this heading on the table, are included three or four grants which were specifically for release time, not in connection with an individual project, but in connection with the development of the individual faculty member's knowledge and awareness of instructional development.

In this last year of operation, it was suggested by the Programme that each university might be able to fund, out of OUPID sources, one individual to the extent of about $12,000 in any one year to take advantage of seminars, workshops, conferences elsewhere or the experience in instructional methods of educational development in other parts of Canada or in other countries. This was a significant step from the original notion of small amounts of release time for specific projects and it is one which we cannot evaluate at this point in time. A proper evaluation can only be done at the end of this current year when the individuals who have been funded can account for the time used. We are aware already, however, that the Programme must be careful not to fund extensive release time on vague suggestions about places or universities which might be interesting to visit. It ought to ensure that there is a carefully drawn up programme for each individual which reflects his own interests, and which reflects the skills and experiences available elsewhere and that part of the commitment to this programme should be the individual's willingness to pass on to other people in the province the information and the skills which visits to other centres have offered him.

There are other interesting features of this distribution, however. We examined the grants to see how far they reflected one of the following:

(1) expressed national or provincial educational needs

(2) world-wide trends in higher education practice

(3) preferences of the Programme's staff or committee

(4) exceptionally good public relations by those interested in a specific area of activity.

We believe that a concern for the quality of teaching in first-year courses and for the diagnosis and remediation of basic skills of language and number among first-year students in the universities have both been strongly expressed needs in the province. We would have expected to find more emphasis on both of these and indeed, it was the recollection of some members of the Programme Committee that there was deep concern at the Committee level about first-year courses. It had been hoped to encourage a number of individuals to pursue proposals for an examination both of content and of teaching methods with large elementary classes. That this is not an area in which a large number of grants have been distributed is probably due to the fact that the Director of the Programme was known to lay stress on interuniversity cooperation with respect to the teaching of large first-year classes. It was generally believed in

the province that he had a special interest in the preparation of core content material for first-year courses and the subsequent reduction in academic time spent on such classes. An example was the way in which the Director exerted influence upon the coordinators of a project designed to examine materials for use in elementary psychology to swing the project somewhat to examining the problems of creating a common course. The result seems to have been a good deal of alienation; faculty members, at the best of times, find it difficult to conceive of a common course across several universities that would take account of the special interests of the members of faculty in each of those separate institutions. The psychologists, in this instance, have found it very difficult to do it under pressure from outside and came to view that pressure as interference. Indeed, the interuniversity cooperation in that project seems to have largely dissipated.

This experience was very widely noted by those in other disciplines in the province and, there has grown up a widespread suspicion of undertaking work with programmes connected with first-year studies. It would, however, be misleading to regard these four projects as the Programme's sole contribution to work on first-year courses. Under the heading of teaching methods, almost all of these projects show some relation to first-year teaching. There was no conscious bias by the Programme Committee, as far as we can tell, to favour elementary courses, but it is clear that the majority of projects which concern themselves with instructional processes were looking more often at the introductory than at the advanced levels. We have not, however, classified these under first-year courses, since the general rationale in the applications for funds stressed a widespread applicability. When we talked with the grantees, we were aware that almost all of them were trying to gain experience of methods which could be applied in almost all of their teaching duties.

One area where we feel that the Programme could have done very much more was in the support of off-campus teaching programmes. We are aware that the Ministry of Colleges and Universities has special funding available for the generation of off-campus programmes, particularly in the northern area of Ontario. That fund is clearly spent on generating programmes and not on examination of the teaching methods or curriculum design that is best suited to this kind of teaching. We were frequently told in our travels around the province that off-campus teaching programmes ought to have a real effect on stimulating university teachers to examine what they teach and how they teach, since the off-campus student has special needs and very often has a mature appreciation of the teaching process. We did not, however, find evidence of off-campus programmes being significantly different either in design or method from the normal on-campus undergraduate programme.

In almost all the universities we visited, we heard repeated complaints about the level of language and number skills and expressive ability among

incoming students to university programmes. It is clear that the universities are very dissatisfied with the product of the high schools in these areas and the Programme has made a significant contribution in this direction by quietly fostering both clinic and classroom remedial activities in a number of universities. This is not something which has had high profile in the Programme, nor is it something which the Director or the Committee have seen as an area for interuniversity cooperation. The main reason for both of these is undoubtedly that there is sensitivity in the province towards any criticism of the job being done by the high schools and the universities are aware of a need to tread softly. It has however been argued that both the diagnostic and the remedial work in this area should be either a school or university responsibility and not that of an external funding body. We were aware that the projects supported by OUPID had very largely arisen as a central concern in each of the universities in question, and application had been made to the Programme since universities at the present moment are hard put to consider new ventures within their existing budgets. In this sense, OUPID has simply been the agency for funding something needed and desired by a university instead of pursuing its original task which was to effect change of attitudes and stimulate activities that might not otherwise happen.

It is clear that those major items under the heading of teaching methods, namely self-based instruction and computer-aided instruction, are activities which do reflect expressed educational needs, both in the country and the province; they are also activities which are pursued across the whole world of education. There is no doubt that in this province, at the moment, there are some very vocal enthusiasts for the cause of these two methods. It is the combination of these pressures which makes projects in these two teaching methods the largest area of funding by the Programme. This is despite an expressed view by members of the Committee that they wished to avoid too much funding in the area of computer-aided instruction and other hardware-oriented self-based methods. There is no doubt that the disciples of the present fashion have seen OUPID as an excellent source of funds.

One of the former members of the Joint Committee remembered that the Committee had been very wary of computer projects and had given them a lower priority since "they seem devoted to the instrument rather than to the student." While this is difficult to substantiate, it is our experience that many members of faculty do level this criticism at those of their colleagues who have been involved in this kind of work and we were often asked why OUPID did not pose searching questions about the educational objectives of the computer-aided instruction projects it had funded. We were given the impression that those who asked this question considered the projects to be over-empirical and educationally naive.

Computer-aided instruction projects also identify a major concern which we have about the project funding of OUPID. It is an area which is actively pursued in all sectors of education in the province and outside it. It is an area for which the National Research Council has set aside facilities and services for research and development. We found no evidence of integration or interaction between the OUPID-funded projects and work on computer-aided instruction in other sectors, nor did we find that the Programme personnel or the grantees were aware of the research and development facilities that could be available from NRC. One of the Programme grants was given to sponsor a conference about computer-aided instruction, and it would appear that rather than increase co-operation among universities in this rather expensive area of activity, it fostered more insularity and encouraged each university to seek to enhance the reputation of its own computer facilities and computer personnel.

This is a general criticism which we have to level at the Programme. There were clear attempts at interuniversity cooperation but these seem to have been very strictly compartmentalized in that certain grants were available for co-operation, while other grants were given on the understanding that the grantees should themselves seek out areas for cooperation with other universities. There was no central monitoring of this. Because the Programme was geared primarily to individuals in individual institutions, very similar projects were generated in different institutions. In some instances, the general scrutiny of applications by the Director, his advisors, and the Committee, focused on these similarities and the Programme became very active in generating cooperation. However, we suspect that much of this scrutiny of project applications took place at a general semantic level and was not always accompanied by fundamental understanding, either of the discipline matter or of the pedagogic issues involved. As a result we have discovered areas of overlap which are both time-consuming and unproductive for the individuals involved. For example, a computer-aided instructional programme at one university is designed to investigate a problem whose earlier solution elsewhere has been the starting point for another project funded by the Programme in a different university. We were the agency whereby the two individuals were first put in contact with each other. We believe that the Programme should have carried out this task at a much earlier stage.

There are many examples too of parallel projects or closely overlapping projects such as those centering on remedial programmes where great benefit would come from cooperation. Many people mentioned to us that some of the projects were good examples of the reinvention of the wheel. The aim of the project might have been achieved elsewhere at an earlier point in time and it was simply lack of information about educational experiments in the province which led to the inefficient repetition of earlier work. However, it is commonly

known in education that a certain amount of reinvention of the wheel is necessary. Since it is often difficult to implement other people's discoveries and other people's research in education in one's own teaching, it is very often necessary to experience directly the results of that research in the context of one's own teaching. Innovation which is self-generated is highly motivating and highly committing. It is likely to lead to results which are more convincing to the individual who has participated and it is likely that the results will find an easier application than those encountered only in journals or in books. It is undoubtedly a dilemma for any funding programme such as OUPID to know how far to encourage changes of attitudes as a result of the direct experience of educational innovation, however "old hat" that innovation may be the educational world, and how far it should be at the forefront in encouraging entirely new developments.

In the following chapter we shall examine some of the effects of the grants, when we look at the overall impact of the Programme on the Ontario universities.

CHAPTER 4

OUTCOMES: THE PROGRAMME

We now come to examine the Programme itself in terms of its major successes and failures, its relevance to the Ontario universities, and its impact upon them. We have already indicated earlier that this chapter would concern itself with four of our major terms of reference.

INNOVATION

The first of these, which provides a link with the previous chapter is "to assess the extent to which Programme funds have resulted in innovation or modification of instructional processes in Ontario universities." This task has been a difficult one because we were not in a position to construct any independent review of instructional processes in those departments, faculties or universities whch have received grants from the Programme. As a result, we do not possess the kind of before-and-after data which can be useful for such a judgment. Consequently, we are highly dependent on the recollections and judgments of the people with whom we have talked.

It is also a demanding question to ask. Changes that occur in the pattern of teaching and learning in a university over a two-year period are hardly likely to be noticeable. There is a danger that we might comment at a rather low level on small changes that have occurred in individual courses or classes when what is really required is an assessment of the major changes that have occurred noticeably in the universities of the province. The Nuffield Research Group Into Higher Education in the United Kingdom has employed two full-time and four part-time people over a space of more than two years to examine innovation and change in some forty-six institutions of higher education. In that time, they have found it hard to identify changes since so much of university teaching

is a private activity for the individual teacher whose methods and approaches may not be known to his colleagues. Their experience is that only a long, slow, patient survey will yield information: there is no ready catalogue available.

We do know that in Ontario the activities of those who are funded by the Programme to carry out specific modifications of courses, curricula or teaching method, are not in any concerted way affecting the teaching of academic colleagues in the same department or in neighbouring areas Instructional development is regarded by many faculty members as being the particular concern of a few enthusiasts who have time to devote to teaching and who wish to take the risk of reducing their research or scholarly output. It is not regarded by most faculty members as something with a reasonable payoff in career terms, and perhaps not in educational terms. Most members of faculty therefore treat a colleague who is undertaking some systematic change or some innovative programme with some amusement and a general "wait and see" attitude. It is our impression that most projects funded by the Programme would need to show spectacular results before other colleagues would be prepared to invest the time and effort needed to make corresponding changes in their own teaching.

Even those projects which had been running for some time before the Programme began, which have had a big investment from the Programme, and which are clearly carried out by competent and respected faculty members, do not seem to tempt other faculty to make changes. Even when the department itself has given a large commitment to the project, in terms of time and resources, the project will often be regarded as an insular experiment which has no long-term effect on the teaching programme or attitudes of the whole department.

We must therefore look only at the changes which have been brought about within the individual projects funded by the Programme. As we have already said, more than half of the projects are at a stage where such an assessment is not yet possible. For instance, materials are now prepared but have not been tested out in practice, or curriculum has been reassessed but not yet reorganized, or a new teaching method has been piloted but has not yet been attempted in the classroom with large enough groups of students for its success to be evaluated. It is also true, of course, that some of the projects funded were not intended to give rise, in the short term, to innovation in the classroom, but rather to prepare members of faculty for a longer-term examination of their teaching. Such would be the case of those workshops and conferences which had been sponsored with Programme money or of study leave and travel grants. We are aware of only eight projects which have resulted in a modification of instructional processes in a given teaching situation. It is worth pointing out, however, that these were almost all projects which had been conceived before OUPID was created and on which individuals or small groups of people

had been working in a part-time fashion for some time before the project was finally mounted with proper support and finance.

These findings are not surprising. Educational innovation and change is not something which occurs quickly or whose effects are seen immediately. Any system which tends to be impatient with the slow progress of educational change is likely to make hasty judgments about the use of resources and uncomplimentary judgments about the time and efforts devoted by individuals. The grantees with whom we talked very often pointed to the long-term aspects of their work, and many, indeed, were disturbed by the fact that OUPID had initially only a three-year life. They were aware that in three years a programme of this kind can do little. It is sustained effort and sustained funding over long periods of time that will result in significant changes in the instruction offered in the universities of Ontario.

Many of the grantees and some of the presidents of universities were of the view that the way OUPID had been conceived did not give it much chance of success. The grants have often been too small and for too short a period of time. As a result, there may not have been the sustained effort that is necessary to bring about change. Change cannot come about overnight; it needs a long incubation period.

EXPERTISE

Another of our terms asks us "to consider the extent to which the Programme has produced a cadre of expertise in Ontario universities."

It is difficult to define expertise in instructional development, especially since there are many reasons for believing that expertise in university teaching is not vested in individuals, but is collective. All faculty members have something to contribute from their experience, from their observations, from their thoughts and ideas, to the development of university teaching and learning. In the same sense, university students have much to contribute to this expertise.

It does not then, altogether surprise us to find that consistent efforts were not made through the Programme, in its first two years, to develop a cadre of specialists in instructional development. It was assumed, as part of the Programme's philosophy, that funds for release time, and for innovation in teaching, would produce a group of people who had more experience of pedagogical matters in post-secondary education and that these people would be significantly useful to their fellow faculty members. However, it is apparent that over the last year the Director with the approval of the Committee, has concentrated much more directly on the development of such persons. The expansion of the funds available to second individuals from teaching to particular courses or conferences is a direct measure of this reorientation. Similarly, the release of Dr. Bruce Squires from some of his duties at Western, to act

as a course consultant, is a recognition that there were, when OUPID began, already some individuals in Ontario who had special experience that was worth transmitting.

The fact that the Programme is now encouraging individual faculty members to make themselves more familiar with special aspects of pedagogy and is encouraging the development of workshops, where individuals such as Dr. Squires can pass on some of their experience, is very worthy. However, it is not generally felt that in two and a half years the Programme has created any new sources of expertise. As we pointed out in the last section, those projects which have been successfully completed and evaluated, and which have resulted in some change in instructional processes, were already underway before OUPID began. The Programme has not consistently attempted to make the skill and experience of the individuals who were responsible for these programmes available to others, and they, like all the other grantees of OUPID, were rather uncertain about their responsibility to spread information or to pass on skills learnt as a result of funding from the Programme. It is our view that much more consistent effort is needed in this direction, if this aim of the Programme is to meet with any success.

We say this because we do believe that certain of the projects funded by the Programme can result in significant changes and developments in university teaching, and certain of the projects have the potential for developing extensive consultancy services for both faculty and students. It would be a great pity indeed, if this effort were lost to the system because it was left to individuals to assess the market for their new knowledge.

It is, of course, worth commenting that it is part of the OUPID philosophy that development must take place in individuals and it is common experience in universities throughout the world that individual faculty members do not respond readily to educational experts. A far greater response is often observed to educational experiments which have been carried out by persons respected in their scholarly discipline. It is common to find that faculty members in a discipline look with interest on experiments in the teaching of that discipline and believe these to be more significant than lessons to be learned in the teaching of any other discipline. It is doubtful, in fact, if most university faculty believe in the transferability of skills from one discipline to another or in general pedagogical principles. Here more education and communication is badly needed. We know that the workshops funded by the Programme at Carleton University did a good deal to break down such prejudice. That the Programme has not managed to fund more of these activities, and to sponsor more individuals who have the skills to lead such workshops, is a great pity: it may well have resulted in a greater number of resource people being available to the faculty members in the universities of the province.

INTERUNIVERSITY LINKS

We were also asked "to consider the extent to which the result of projects has been of value to institutions other than those in which they were conducted".

Our findings on this are patterned very closely to our findings about the effects which projects have had on other members of faculty in the same department or university. There is an inbuilt reluctance on behalf of universities to learn directly from each other and there are not many examples in the province, whether funded by OUPID or not, of educational experiments which have been stimulated by successful projects elsewhere. We were aware that some of the major projects funded by OUPID, such as the chemistry project at McMaster and Western, have raised interest in other universities, and teachers of chemistry from other institutions travelled to McMaster or Western to see the Programme in action. There are indications that teachers of first-year chemistry in one or two of the universities may well attempt some modified version of the teaching programme generated by the grant. A good deal of interest has also been expressed throughout the province in the Laurentian geology project and the Ottawa one in physical education. Such interest has not been confined to this province alone and several of these projects have also generated active interest in other parts of Canada. It is worth pointing out, however, that the interest has largely stemmed from metings and activities generated by professional bodies in the disciplines concerned rather than by efforts of individual universities to make their experience known to others in the province.

Once again, we have to point out that the number of projects which are in a position to influence what happens in other institutions is limited, since the Programme has been running for such a short while and many results will not be seen for some years to come. Certainly, if it is believed that a project should have an effect, not only within the department with which it originates, but also in the university at large and in other universities, then we are not talking about short-term investment or short-term effects of the order of two or three years. We are talking about an investment by the whole university system of a period that approaches a decade.

The universities, of course, are not the only institutions of post-secondary education in the province and it is interesting to note that there are no formal links between the universities and the other institutions in the field of instructional development. This we find surprising since it is known that the Colleges of Applied Arts and Technology have expended energy, time and resources in examining problems of teaching and learning and in developing new approaches. It would seem reasonable that all post-secondary institutions in the province should at least explore a sharing of experience. We know it is generally believed the different sectors of post-secondary education have different teaching

problems, have different student intake, and have different aims. But if there are any fundamental pedagogical principles at all, then we believe that these could be explored in concert by different kinds of institutions. In Great Britain and in Sweden, university teachers have learned a great deal from their counterparts in other institutions of higher education, and indeed, from other institutions at the secondary school level. We cannot believe that the province of Ontario is very different.

In this context, we were also surprised at the lack of general awareness in the province of instructional development activity taking place in other provinces of Canada and in the United States and in Europe. We know that individual members of the Joint Committee, the Director, and many members of faculty in different universities have travelled a good deal examining instructional development and curriculum change in other jurisdictions. But we found no evidence that the information, the ideas and the concerns which they had picked up were being passed on to other faculty members in the province. While the province is a useful administrative and fiscal organization for fifteen universities, it should by no means shelter the universities from an awareness of educational practice elsewhere. It is not in any sense a barrier to scholarly knowledge from other parts of the world and we cannot see, therefore, why there should be insularity in educational practice.

COMMITMENT

We are asked "to examine the impact of the Programme on the level of commitment to instructional development in each of the universities" and we have interpreted this in an institutional sense. We have already commented about the commitment of individuals; and here we must examine how far each university as a corporate body has a commitment to instructional development. Five universities in the province have some form of commitment which has a mandate from the university to keep instructional development or teaching and learning under review. The committee at Carleton University has instituted a number of small programmes, has distributed small amounts of money in grants for instructional development on the campus and has generally attempted, through the Senate and through more informal means, to influence the attitudes of faculty members about the quality of teaching and learning in the institution. There is also established, as an adjunct to this committee, a small instructional development office on the campus. This office has a small staff and has very energetic and direct support and help from members of staff in the Office of the President and the Office of the Vice-President Academic. Despite budgetary cuts, this office and the Committee together have maintained a high level of commitment to instructional development in a small group of faculty and have generated moderate interest among a wider group, including the student body.

A committee on teaching and learning exists at the University of Windsor, chaired by the Senior Vice-President and it has attempted largely to influence attitudes in the University by direct discussion with faculty rather than by implementing any specific plan or programme of instructional development activities. It is a strongly held view in the University that such activities should be generated by faculty members themselves rather than organized centrally by a committee or an individual.

At Guelph, the Senate Committee responsible for this area has a half-time member of staff to act as coordinator of instructional development activities. This committee does not, however, seem to have very direct links with the Senate and does not seem to direct business for Senate discussion. Similarly, the committee and the coordinator both have adopted a responsive role, co-ordinating only that which is brought to their attention. No policies have been enunciated by the committee and as far as we could tell from discussion with members, there are no particular activities which that body feels it could specifically generate on its own responsibility.

Both at Waterloo and Queen's, there are Senate committees which are investigating possible future organization and activitity in instructional development. The committee at Waterloo has already recommended that a small staff office be set up to deal with matters of improving learning opportunities in the University, and that this office should have a reasonable budget for the salary of a part-time interim director. The Senate has rejected this recommendation and has asked the office of the Vice-President Academic to indicate how far the duties allocated to the proposed office fall within its scope of its activities. The committee at Queen's University is still in the process of examining the needs of faculty in the University and it has not yet reported to the Senate on action which it should take.

The activities that we have briefly described at Carleton, Guelph, and Windsor were all activities which were either fully in operation or very closely planned before OUPID was launched. At the two former universities the activities are very largely a result of the commitment of the Presidents and at the latter of the senior Vice-President. In all three universities, there is no doubt that the senior administrators have encouraged an interest in teaching and learning and have fostered interest in OUPID. But it is also clear that these universities would have done what they have so far succeeded in doing even if OUPID had not existed. The Programme has, for these three institutions, provided auxiliary funds and facilities for work that was already stimulated. The Programme in its present form could offer no more than a band of enthusiastic faculty members and administrators were already able to provide.

The story is perhaps slightly different at both Queen's and Waterloo. At Queen's, the involvement of faculty members, not only as grantees of the Programme, but also in the administration of the Programme, has undoubtedly

contributed quite a lot to the University's desire to explore its own instructional development facilities further. At Waterloo, while the Senate Teaching and Learning Committee began some one and a half years before OUPID was announced, the recent recommendation to institutionalize the improvement of teaching and learning stemmed very directly from the person who was appointed as liaison officer to the Programme. There is no doubt that this contact with the Programme, with other faculty members through the Programme and with other institutions at conferences organized by OUPID, all contributed to focusing upon future planning for instructional development on the campus.

At McMaster University the situation is different again. Like the previous five universities already discussed, McMaster has welcomed the Programme for Instructional Development very positively and feels that it has made a very useful contribution to the development of faculty members. The Programme seems to have been developed at a time when there was growing interest on the McMaster campus for a university-based programme. The Academic Advisory Committee which concerns itself with teaching and learning on the campus was particularly interested in OUPID's request for the names of people who might benefit from release time for instructional development and realized that there was a more extensive need for such release time than could be provided by the Programme. Since the University believes that OUPID should not, in any sense, become a replacement for the University's own involvement, it has agreed to provide release time on its own budget for at least one member in each faculty per academic year. There is no doubt at all that this decision was very much influenced by the thinking of the Programme, and by the impact which the Programme was already making upon the University. Those individuals who were grantees of the Programme at McMaster seem to have been particularly able to disseminate not only the information about their projects, but also an enthusiasm for instructional development, that we did not find so common in other universities.

Three other universities in the province have active programmes. But in each case, these are programmes which are independent of any special university committee on teaching and learning or instructional development. There is, for instance, at the University of Western Ontario an Academic Development Fund of substantial size, which is available for innovations, usually to whole departments rather than to individuals. Traditionally, this money has been directed towards curriculum review and curriculum change. The amount which has been spent on instructional modification or innovation is hard to determine, and in the absence of a committee which has a special mandate for improvement of teaching and learning, information about the effect of such monies on attitudes of faculty is difficult to obtain.

York University has a flourishing but voluntary programme aimed at the improvement of teaching skills. It is a programme which is run in conjunction

with the Counselling Service of the University and has attracted a great deal of interest from individual members of faculty and from graduate students who are concerned with teaching. It is a programme which is now close to the work of OUPID since the present director at York has been given a release time grant to study similar centres in other parts of the country and in other countries. In the past, York University has made many efforts at instructional innovation and did at one time have the active interest of the Assistant to the President for Academic Affairs, who encouraged not only a small granting programme for innovations within the University, but also a series of seminars and workshops for the improvement of university teaching. These were all activities which were reduced in scope just as OUPID began and, in some small measure, the Ontario Programme may well have provided a substitute for the internal programme from time to time.

The last of this group of three is the University of Toronto, whose original plans for a very extensive instructional development programme were defeated by lack of funds. Remnants of the programme do, however, continue to exist in the faculty fellowship programme which allows time and resources for individuals who have made a contribution to the quality of teaching and learning in the institution. While OUPID grants have certainly been a useful adjunct to this programme and while there are some sections of the University of Toronto which have undertaken work they would not otherwise have been able to do, because of financing from OUPID, we do not believe that the University's commitment to instructional development has been substantially altered by the work of the Programme.

The same could not be said of Laurentian University, where the liaison officer for the Programme for Instructional Development has been influential, first of all in stimulating a variety of instructional development activities which do not stem directly from the Programme itself, and secondly, in drawing up a report recommending some future facilities for the improvement of teaching and learning in the institution. The report draws heavily upon his experience as liaison officer for the Programme and the opportunities which it gave him to attend conferences, workshops and meetings with other persons involved in instructional development in the province. He freely admits his debt to the Programme in assisting him see future developments in the University. His recommendations include the setting up of a Vice-Presidential Advisory Group to advise on means of improving teaching and learning and where possible, to actively promote the improvement of teaching and learning; the creation of a number of task forces to facilitate the study and dissemination of results in various areas of teaching method and curriculum and programme design; and the institution of a small grants scheme within the University itself.

At the other five universities in the province, there is no formal programme of instructional development, no specially created committee for teaching and

learning, and no internal grants programme of the sort which has been described elsewhere. This is not to imply that there is no instructional development activity in these universities, nor any concern for teaching and learning. For instance, at the University of Ottawa there are, in several faculties, teaching improvement committees, and there are excellent resources for teaching and learning in the institution; there do not, however, seem to be substantial efforts at the coordination of these facilities and these committees to produce a focus for instructional development and the improvement of teaching. We are also aware that at the four smaller universities, particularly those with a high undergraduate population, there can be less need for formal institutionalized means of support for the improvement of teaching and learning. In small institutions the interaction between students and faculty is very often conducive to very direct feedback to faculty about their teaching, and the close interaction between faculty members themselves often allows very effective informal instructional development activities. In these institutions, OUPID has made an impact, not only in terms of fostering work which the universities themselves could not foster in a difficult budgetary situation, but also in focusing upon the role which the institutions themselves might play in improving instructional processes. We found these universities willing to recognize the responsibility which they have as institutions, but we found them equally puzzled on how to find the means to implement that responsibility.

Our overall assessment is that OUPID has not substantially altered the commitment which each of the universities in Ontario has felt towards instructional development. In many cases, that commitment was already high before the Programme came into being and indeed, the fact that the Council of Ontario Universities was willing to lend its support to the establishment of the Programme is an indication of strong support by the committed. There are other institutions which are by no means highly committed, but which are aware of their responsibilities in this direction and whose difficulty stems largely from the conviction that instructional development fostered from outside does not necessarily generate an increased commitment.

We were aware, during our visits to universities, that there are, in essence, two levels of commitment: commitment by individuals and commitment by the institution as a whole. Very often the committed individuals were aware that their institution did not share the intensity of their commitment. In other instances, we met with presidents and deans who found it difficult to know how to increase the commitment of faculty. It is clear to us that two processes must work together to institute a total university commitment: one working through extrinsic and intrinsic reward systems of teaching and affecting the teacher himself very directly; the other, working through the funding of universities, making it less difficult for institutions to support improvement and change. While OUPID may have done a great deal to affect the motivation of

individual members of faculty, it has not been able substantially to alter the way in which universities can respond to the resource and financial demands of instructional development. To that extent, it has not increased the commitment of the Ontario universities to instructional development.

CHAPTER 5

A GENERAL VIEW

We are now in a position to look at OUPID in overview terms, to review its contribution to the Ontario universities, and to prepare the way for the recommendations which we make in the following chapter.

First of all, the justifications for OUPID. The Programme was set up in the first place because it was believed that there was in the province a great deal of goodwill and good intent by members of faculty towards the students whom they teach: that faculty members wished to, and often do, improve the quality of the instruction which they offer. It was, however, felt that members of faculty, while they have the will, very often do not have the time or the resources to effect that improvement. Our belief after travelling throughout the province and talking with a large number of people within the universities is that that reasoning was sound and remains sound to-day. We believe that there is a healthy attitude towards instructional development in the province of Ontario: we do not find faculty members opposed to the improvement of university teaching—we find them opposed only to certain methods of organizing that improvement.

The aims of OUPID stressed assistance to individual faculty members in the improvement of their teaching, and the methods adopted by OUPID throughout its lifetime have been focused essentially on individuals. While we recognize that it is ultimately at the individual level that teaching and instructional systems are examined and changed, we do not accept that a prime focus upon the individual is the most effective way of developing the attitudes which are required to breed change. Without the support of the institution, the individuals who work for it are unlikely to make radical changes in their approach to any task for which they are responsible to that institution. Any programme which,

like OUPID, did not make determined efforts to affect the decision-making processes of the universities and to clearly involve those in influential positions within them would be unlikely to succeed in this task.

In addition, both the aim and the methods of the working of OUPID have to be set clearly against a background of the reward system which operates, or is seen to operate, within the universities of the province. As long as the activity of research is considered to be more important for career advancement and immediate return than that of teaching, any programme that directs itself to encouraging individuals to alter their approach to teaching is unlikely to have great success. Other means need to be sought to alter attitudes and intentions in the universities of Ontario.

The effects of OUPID have not necessarily been those that were expected when the Programme was set up. We have not been able to show that the Programme has substantially increased the number of people in the province who are undertaking a systematic review of their teaching nor that it has necessarily increased the commitment of universities to instructional development. The systems approach as preached by OUPID has not appealed to all faculty members and many indeed would prefer at this time to see more examples of the results obtained from systematic experiments financed by the Programme. As far as influencing the university is concerned, the Programme was simply not set up with the right structure or resources to have such far-reaching effects.

Neither of these propositions indicates that OUPID has failed the province; on the contrary, the achievement of OUPID would indicate that in its time and in its place, given the commitment and resources which were available to it and given that probably far too much was expected of it, it has been a valuable seed ground for instructional development.

The Programme has been experimental and therefore has made many errors. It has been organized on a very small budget and therefore it has been unable to commit itself to all the tasks that might be expected of it. It has had a relatively small operational budget and it has therefore had to make decisions—sometimes difficult ones—about the worth of individual projects. It has had to make short-term decisions about very long-term effects on the university system, and its impact upon the universities in Ontario has therefore very largely been determined by the amount of wisdom and vision with which individual personalities connected with the Programme have been credited by their contemporaries.

The achievements of the Programme lie largely in two areas: (1) the support it has given to those committed to instructional development, and (2) the lessons which it has taught the universities for the future. First of all, the supports which it has given. It has been normally difficult for any faculty mem-

ber to spend a great deal of time or effort on the improvement of teaching, the generation of new curriculum, or the generation of new teaching methods in his courses because of the large number of teaching, research and administrative commitments which most carry. Departments, faculties and universities have not normally had the financial or manpower resources to release individuals for such activities. Those who would commit themselves to instructional development work find themselves reducing their own personal, family or leisure time or cutting into the time which they would rather spend on research in their discipline. OUPID has for at least some members of faculty in the province offered the time needed without the necessity of these alternatives. Similarly, it has been difficult for departments traditionally to be able to find resources out of operational budgets for the production of highly experimental teaching materials or the hiring of teaching assistants to attempt some experimental teaching method. Both of these are areas which the Programme has been able successfully to fund without embarrassing departments or faculties and in many instances augmenting the limited resources already pledged by the universities. All of these things have been particularly important to Ontario universities at a time when the rate of growth of their income is appreciably slowed and they have been finding it difficult to allocate priorities. It is generally sensed in the province that when university budgets are tight, innovation of all kinds is threatened and innovation in teaching, more than any other.

These supports have resulted not in spectacular short-term achievement but in something, perhaps, much more important for the Ontario universities at the moment. Since it is generally believed that in a time of recession instructional development is likely to suffer very heavily, those committed to the improvement of teaching, particularly to those methods which involve time and financial resources, tend to lose heart and to lose a certain amount of faith. The fact that OUPID has been in existence during such a time of recession and has been able to finance even a few of the projects which committed individuals and departments have generated has kept a lot of hope alive and has avoided the intense frustration that can sometimes develop in times of hardship among university teachers. It has at the same time offered to many individuals in the province a certain support within their own departments or faculties in the sense that funding from outside for one's work is usually recognized by one's colleagues and increases the credibility of one's work.

It could also be said that OUPID has provided a focus within the province for those people actively engaged in the improvement of teaching. The liaison officers and the grantees together, although a small group, probably represent a large proportion of those actively engaged in instructional development activity. That they have been able to come together occasionally to discuss teaching and learning has given them support: they are no longer lonely; they

are no longer isolated from sources of enthusiasm and reinforcement; they have been able to exchange ideas with each other under the aegis of the Programme.

Very closely related to this is the way in which the Programme has also succeeded in a limited way in generating some genuinely interuniversity projects. Much may be learned from the cooperation between universities and OUPID is an example of one effective way of generating such work without burden on the budgets of individual universities.

THE LESSONS

The two and one-half years of operation of the Programme have provided important indicators to the universities. It is quite clear that while OUPID has been successful in offering support to individual faculty members and in sheltering individual universities from some of the financial burdens of educational innovation, it was in a sense only a casual support.

One lesson which a large number of the grantees, the liaison officers and university administrators chose to point out to us was that OUPID was not, and never could be, the support to an individual faculty member that his own university can be. Money coming from a small-scale, central programme, while valuable and especially valuable in a crisis time, could never replace the reinforcement which would be given to educational innovation were it funded by the institution to which the faculty member owes his allegiance. Only in that way would there come about a true integration of educational experiment and instructional development with all the normal functions of the institution and the faculty member. Only in that way would instructional development cease to be a special activity and come to be part of the every day activity of the university. Many people have stressed to us the lack of involvement which OUPID had with top people in the universities and the province. Many faculty members would have seen it as a body which acted as an ambassador for instructional development which attempted to stimulate institutions to set up their own instructional development offices and services and which would have worked strongly and energetically to generate more funding within the system for instructional development. The fact that it did none of these would indicate that it was a holding operation: for those faculty members who are already committed this is not enough, and for the universities it was not sufficient stimulus for their own institutional involvement.

A central programme alone will never have the capacity to generate a consistent university policy on teaching and learning. Only each individual university can prepare a meaningful programme of instructional development which will involve all faculty in all teaching departments. It is only within the institution that particular problems which affect that university can be known and can be accounted for; and it is only within the university that a programme for

instructional development can be meaningfully related to the reward structure, to promotion and tenure, and to the conditions of service of members of faculty.

Another lesson which many people have learned from OUPID is that a cadre of enthusiasts, if not experts, does exist within the Ontario universities and that no central programme will necessarily increase the ranks of that group. What OUPID could have done better than it did was to increase communication between such people and their fellow faculty members and to influence the way in which individual universities look upon these human resources, to make instructional development a more universally accepted activity.

We were told time and time again that no one was against instructional development. To be against the improving of teaching is a heresy. But many people were against a programme operating from outside the universities which tried to assess the needs of individual departments or of individual institutions but which could not focus on the right combination of innovative approaches which would solve problems of or assist fifteen institutions at one and the same time. OUPID despite its very non-directive approach, despite its very open acceptance of such a wide variety of projects and activities, was strangely viewed by many as a new orthodoxy. Few people, it would appear, are against the establishment of some kind of orthodoxy but it is our overwhelming impression that the rules and articles of faith are already laid down within the fifteen institutions: they are understood, they are meaningful and they already take account of individuality, and are therefore respected. Finally, one significant lesson is that it is difficult for a central programme like OUPID to involve students in an effective way. Students owe a great deal of allegiance to the institution in which they study and it is difficult to involve them in a province-wide programme. This is not to deny the notable contributions that individual student representatives have made to the deliberations of the Programme committee; but it is to argue that students have a much more direct contribution to make to the evaluation of the teaching and learning situation which prevails within their own institutions. This was a view we found to be shared by faculty, administrators and students throughout the province.

We have found in Ontario a large amount of agreement that instructional development has not yet been effectively built into the fabric of the universities: that OUPID while highlighting significant areas for interuniversity co-operation was not the correct vehicle for the major change which must now occur; that is, the mobilization of all resources within a university—be they faculty, student or administrative—for the improvement of teaching and learning.

CHAPTER 6

RECOMMENDATIONS

We are aware that approximately 40% of all university faculty and students in Canada are in the fifteen universities in Ontario and, therefore that the commitment of the Ontario universities and the provincial government to the quality of teaching and learning in these institutions far outweighs the importance of that of any other province.

It is our conviction that instructional development is best served by local initiative with all planning and organization taking place at the individual university level but with adequate moral and financial support being provided by a variety of university and government organizations which are central to the province. Ideally, each university in the province should have its own well planned instructional development programme funded under a separate internal budgetary heading and set as one of the educational priorities of the institution. Such a programme should be under the control of the university and an appropriate internal committee set up to monitor it.

We were told by students, faculty members, administrators, government officials and commentators upon the universities that at present and for the conceivable future it is unlikely that any university in the province would earmark existing funds for the support of such activity. We know that already those few universities which had set aside some operational budget for instructional development have been forced to cut back that budget to an almost non-existent level in order to cope with the other pressures currently faced by the universities. It is our own assessment that if our recommendation were to be that universities should set aside a proportion of their budget for a substantial instructional development programme that only in one or two of the universities in the province would this recommendation be implemented and that at

the present time even in these universities very little would be found in the way of funding.

On the other hand, we have discovered in the province no substantial opposition to the idea of the government making available a specified sum for the purposes of instructional development programmes in the universities. Students and faculty members do not appear to mind specific government monies being set aside for instructional development programmes within each university and, indeed, those who are strongly committed to the improvement of university teaching in the province offer this as the only solution to university inactivity in this matter. Government officials and university administrators generally appear to oppose the principle of earmarking funds for specific university activities, very largely on the grounds that only the universities are regarded as having the right to decide priorities. We were repeatedly told by faculty and by administrators that instructional development was not a high priority at the moment because of the financial difficulties of universities, but that if money were available the improvement of teaching would certainly be an activity which warranted the expenditure. We would not therefore in this instance regard the earmarking of a sum of money by government for instructional development as an infringement on university autonomy. Rather, we would see it as a rational government response to a need which the universities have clearly expressed to us.

Research funding from the National Research Council and the Canada Council and from other outside agencies is clearly a form of earmarking. The funds so obtained do channel the activities of faculty members along certain directions, but most universities either do not see this as a threat to their autonomy or they establish some form of research policy committee which safeguards the university's corporate interests. We believe that instructional development funds could well be seen in these terms and so therefore our first and principal recommendation is:

RECOMMENDATION 1

That the Ministry of Colleges and Universities make available an annual sum of money which is additional to the normal disbursements to universities and which is clearly earmarked for the purposes of instructional development in the universities.

The experience which the province has had with OUPID is sufficient to indicate that it takes some time to become fully aware of how best to spend a given sum of money towards a particular aim or objective. This is true not only in the field of instructional development but in many other innovative fields upon which

the universities have embarked in the past. We believe it would take the universities of the province some time to generate the full potential of their own instructional programmes and it would also be a number of years before viable interuniversity programmes could be developed. We therefore believe that the annual sum of money should not be a fixed proportion of educational expenditure in the universities, but that it should build up to a reasonable maximum

That it should be a proportion of educational expenditure we take for granted. We believe that many of the overheads and recurring costs of universities, such as maintenance, are of such magnitude that they would distort any equations which were generated to identify some suitable amount for the improvement of university teaching. It is in any sense logical that such a sum should be related to the other expenditures which are directly related to teaching and learning, such as the salaries of academic staff, student services, libraries and other related educational expenditure. These elements of expenditure are routinely separated by the Ontario universities for accounting purposes.

That maximum is difficult to estimate. The Coordinating Committee for the Training of University Teachers in the United Kingdom has estimated that by the end of this decade a sum of 1% of faculty expenditure would be sufficient to support faculty training programmes, conferences, workshops and seminars for faculty development, and the vast majority of educational experiments that might be generated within each university. A similar suggestion has also been made for the universities of Manitoba. This appears to us to be a very reasonable guide to the universities of Ontario.

Our second recommendation therefore is:

RECOMMENDATION 2

That the sum set aside for instructional development in the universities of Ontario rise over a period of three years to a maximum of 1% of total educational expenditure in the universities. We recommend that in each of the first two years of operation of this new system the sums set aside be ½% and ¾% respectively of total educational expenditure.

We have been very aware during our discussions in the province that many individuals were suspicious of the sources of finance for OUPID. We have been able to establish that OUPID was funded out of research funds held by the Ministry of Colleges and Universities and that these did not affect the direct income of the universities. We believe that all efforts should be made in future to avoid suspicion and misunderstanding. We also believe that the funding of instructional development in the universities such as we have proposed should not involve large-scale trading against BIU funding. The BIU must continue to

be an honest one and instructional development money should be available above and beyond that available for the normal operational budgets of the universities. We therefore recommend:

RECOMMENDATION 3

That a substantial part of the money set aside for instructional development in the universities come from sources other than those available to meet the normal operational expenses of the universities, and that the operation of an instructional development fund have no negative effects upon BIU funding. Further, that a clear and unambiguous statement be given to universities about the relationship of the instructional development fund to other government monies.

We are aware that the exact details of costs and mechanisms depend on our subsequent recommendations and also on the other commitments undertaken by government and by universities in the next few years. We wish however to emphasize that the magnitude of our proposal is less than most industrial, commercial and public service organizations devote to staff training and development. We do not believe that the universities should necessarily emulate other organizations and we are aware that the basis for comparison is not a very exact one. We wish the universities of Ontario to express a public commitment to the quality of their teaching and to work closely with the provincial government in this. We believe that the proportion of budget we recommend should substantially affect the quality of teaching without changing the emphasis upon other vital functions which the universities undertake, including research and service to the community.

We have stressed in previous chapters the need for universities to be fully in control of their own instructional development activities and the need for the universities to plan such activities as ongoing and consistent programmes. We believe therefore that the greatest proportion of the funds made available should go directly to the universities. We believe that the universities are well able to decide how to spend that money on instructional depelopment and we are aware that the preliminary work done by OUPID has increased many universities' awareness of alternatives. The travel grants awarded by OUPID to a number of people over its three years of operation will also have increased awareness of successes and failures in instructional development in Europe, the United States and Australia, as well as in other provinces of Canada. Seminars held during the spring and summer in the Ontario universities by Dr. Eric Hewton of the Nuffield Foundation and Dr. Alex Main, the external evaluator of OUPID, have highlighted the experience of universities elsewhere.

We have also however in other chapters seen that interuniversity cooperation is difficult to foster and we know too that there are projects which by their very nature are unlikely to be undertaken by one university alone, either because they require the skills of faculty members in several universities or because they demand resources which are more than any one university wishes to set aside. We know as well that the communication between universities is crucial to ensure that there is not too much duplication of effort among 15 universities. We therefore believe that there should still be a central committee for the purpose of information, dissemination and coordination. We do not believe that this committee should have a budget which is disproportionate to its responsibilities within the province. We therefore recommend as follows:

RECOMMENDATION 4

That the fund for instructional development be disbursed directly to the universities of the province on an agreed basis, but that a sum equivalent to 200,000 dollars at 1975 prices be retained to maintain a central committee the concern of which shall primarily be coordination and information dissemination.

We have found much support in the province for the idea of distributing money directly to the universities for instructional development, but the exact mechanism has led to some differences of opinion. A number of those with whom we spoke would favour distribution on a basis proportional to BIU income since this would reflect something of the range of instructional situations which the university had to encompass. Others have suggested that the money should be available to the universities purely on the merits of the programme for instructional development which each managed to organize.

We do not believe that the universities would succeed in devising a method whereby whole programmes of instructional development might be satisfactorily budgeted on the basis of external evaluations. Since it is part of the underlying philosophy of our recommendations that each university is best qualified to judge what sort of programme for instructional development it wishes to develop we cannot recommend the setting up of a special body to judge the merits of the programmes so designed.

We believe therefore that a maximum amount should be fixed for each of the fifteen universities for any one year, probably on the basis proportional to BIU income, but it could be on any other basis agreed between the universities. Each university would then be entitled to claim directly any sum up to and including that maximum in any given year. The sum would not have to be justified dollar by dollar at the time, but it would be assumed that each university,

for the record, would submit at the time of claiming, an outline of the programme with general headings and the amounts that it planned to spend on each of the activities outlined. In place of accountability at the time of claiming we would suggest accountability at the end of the financial year. We would suggest that each university include in its annual brief to the Ontario Council on University Affairs a copy of the outline submitted with the claim and an account of how money was spent in keeping with that outline. Each university would be free to alter its plans in the light of experience. Accountability would be in general constructive terms in that OCUA would be expected from time to time to comment on the progress which universities were making in instructional development and to suggest to the Ministry outside evaluation of the effects of any university's programme whenever necessary.

Because no university would be compelled to accept any or all of the money set aside for it, and because accountability would be through OCUA, we feel there is no threat whatsoever to university autonomy. On the other hand, since money so earmarked could only be spent on instructional development activities, we feel that there are sufficient safeguards of the public interest. We therefore recommend:

RECOMMENDATION 5

That in any one year a maximum sum of money for instructional development be allocated to each university in the province in proportion to its BIU income. The universities should be requested by OCUA to submit each year an outline plan and the claim for an amount of money which should not exceed the maximum allocated to it. As part of its annual brief to the Ontario Council on University Affairs each university should give an account of how such money as was claimed in the previous year was spent on instructional development activity, and render an account of any additional direct expenditure incurred in this area.

We believe that the above recommendation has advantages. First of all it is not a cumbersome one to operate. Secondly, it fits well with a mechanism which is already operating in the province to view university priorities and university needs. And thirdly, there is no suggestion that the proposals ably and seriously thought out by universities should be monitored and vetted by an independent body, except insofar as OCUA reviews all university activities.

It is one of the fundamental lessons learned from the operation of OUPID that the criteria against which money is to be awarded for any project should be clearly and unambiguously announced. We believe that while universities should not be directed into certain activities in preference to any others, clear

guidelines should be laid down about the purposes for which money could be claimed from the central instructional development fund. We believe as well, that the purposes for which monies cannot be claimed should also be clearly spelled out, but that universities should not be prevented from allying or combining funds for instructional development with funds for other purposes, if by so doing greater benefits can accrue from the total funds available. We recommend:

RECOMMENDATION 6

That the fund for instructional development not be allocated to any of the undernoted heads of expenditure:

(a) major items of media equipment
(b) computer hardware
(c) other major equipment, instruments or hardware
(d) the introduction of new academic programmes

RECOMMENDATION 7

That the purposes upon which the fund might be expended include:

(a) Release time of faculty members for
  (i) the restructuring of courses and curricula
  (ii) innovation in instruction
  (iii) the improvement of instruction
  (iv) the evaluation of instruction
(b) Evaluation of faculty teaching and student learning
(c) Workshops, seminars, conferences and other activities designed to facilitate planning, innovation, improvement or evaluation of teaching and learning.
(d) Travel of faculty members to other centres or institutions to improve their knowledge or experience of instructional development.
(e) Improvement of communcation within the university about teaching innovations and learning improvements.
(f) Sponsorship of visits to the university of instructional development consultants.
(g) Maintenance within the university of faculty counselling programmes, teaching skills programmes, or other means of supporting faculty members in their teaching duties.
(h) Maintenance within the university of student study counselling programmes or other methods of supporting students with study difficulties.

(i) Establishment in the university of programmes for the training of graduate students in teaching methods or for introducing new members of faculty to the problems of university teaching.

(j) Expenses involved in communicating the university's own experience in instructional development with other institutions.

These recommendations which concern themselves basically with the individual universities are an attempt to shift the emphasis in Ontario from the original OUPID notion of direct assistance from some central source to individual members of faculty, towards a proper institutionalized force for improvement of teaching and learning throughout the province. We believe that with adequate financial backing there is no reason why we should not see significant effects. We have however in an earlier recommendation suggested the maintenance of a central committee. We believe that this committee should, in recognition of its function in the province, contain the words "teaching and learning" in its title. This would recognize that the ultimate aim of instructional development is not to improve the teacher but through him to facilitate student learning. We believe also that this committee should represent the universities, that it should have proper student representation as a recognition of their involvement in the teaching and learning process, and that it should be adequately staffed to do its duty by the province.

Since a good deal of the committee's work would lie in coordinating and communicating, we believe that the committee's membership should turn over reasonably rapidly so that all universities have an opportunity of participation, and also that its meetings should not be confined to one city in the province, but that it should meet in different universities on different occasions and take the opportunity of these meetings to hold open forums in that university about instructional development. In these two ways it could become very clearly the informed voice of the universities of the province on instructional development.

It is crucial for the credibility of that committee that the majority of its members be practicing university teachers. We believe that the chairman, in recognition of the burden of time which the office would carry, should be provided by his or her university with office and secretarial services and should be offered some abatement in teaching for the period of office.

We believe that no further explanation is necessary since the following recommendations are either self-explanatory or they relate very directly to the lessons we have already learned from the operation of OUPID. We recommend:

RECOMMENDATION 8

That the sum set aside for the establishment of a central committee be devoted to the establishment of the Ontario Universities Committee on Teaching and Learning, which shall be responsible to the Council of Ontario Universities.

RECOMMENDATION 9

That the Committee consist of six full-time faculty members of the universities of Ontario nominated by the universities on a rotational basis and two students drawn from among the names of willing student senators. Each member of the committee should be eligible for a three-year term of office, at least two members of the committee retiring each year. The Committee should elect from among its own number a chairman who should be supported during his term of office by his own university with full office and secretarial facilities and such abatement of teaching as is required by the duties involved in being chairman. The Committee should also be free for any of the purposes assigned to it to coopt to its number up to two persons especially experienced or qualified in the area of instructional development.

RECOMMENDATION 10

That the Committee on Teaching and Learning meet on the university campuses on a rotational basis and endeavour in any one year to meet on those campuses which are not currently represented among the Committee membership. The meetings of the Committee should be accompanied by open sessions during which members of the committee might hear the views of university teachers and students on campus.

RECOMMENDATION 11

That the committee appoint to serve it two full-time officers: one an administrator, the other an information officer. Both of these should be appointed on academic-related salary scales, and the information officer at least should have experience as a faculty member in a university.

RECOMMENDATION 12

That the main charge upon this Committee on Teaching and Learning be to keep the universities, the Ontario Council on University Affairs, and the Ministry of Colleges and Universities fully informed of current problems, innovations, and developments in university teaching and learning.

It should be expected to seek out information from universities including university organizations, faculty associations, professional associations, individual faculty administrators and students, both within and outside the province, and it should at any time be willing to accept from any such source unsolicited information or ideas. It could further be expected to synthesize such information and to evaluate such ideas for use within the province. Through its information office the Committee should be responsible for keeping faculty members in the universities of Ontario fully informed about teaching and learning activities both in the province and outside. We recommend that the Committee communicate frequently by newsletter with all faculty members on an individual basis via the computerized payroll systems now in operation in most of the universities. The Committee should report annually to the Council of Ontario Universities.

RECOMMENDATION 13

That the Ontario Universities Committee for Teaching and Learning continue a certain level of funding activity in its own right, with a small budget set aside from within its own operational budget to fund projects of a certain nature: (a) those which will augment and supplement university activity and (b) those which are of an interuniversity nature. In such project funding the Committee should identify on the basis of its information sources, those areas which are of long-term priority for the province.

In order to make such project funding effective and efficient, it should only fund those projects which are initially approved by universities and which are clearly identified as projects which cannot be funded within the normal criteria applied to the universities' own funds for instructional development; it should also set up a proper mechanism for the independent refereeing of all grant applications. The Committee itself, which will be concerned with long-term planning and of coordination of instructional development in the province, should not spend its time on the review of grant applications. It should either

set up a special grant committee or organize a refereeing system which is equitable and accepted by the universities.

RECOMMENDATION 14

That the Committee should, out of its own operational budget, commission projects which are identified by the Committee itself or by universities as being areas where a concentration of resources could lead to useful information or results.

The Committee should exert a leadership function over instructional development in the province without affecting the priorities of each university's own programme. Any project so commissioned by the Committee should be offered to university faculty members on the same terms as normal consultancies are offered by outside bodies.

RECOMMENDATION 15

That the Committee offer to universities a resource service which aims to develop a relevant and practical data base for educational innovation.

The administrator and information officer who are employed by the Committee should be the central resource people for such a service, but the Committee should be able, if it desires, to call upon additional resource people from time to time. The Committee should, in providing such a backup service to universities, use the best which the Ontario university system has to offer in terms of people, bibliographical sources, and material and hardware resources.

RECOMMENDATION 16

That the Committee be responsible on behalf of the universities of the province for liaison in instructional development with organizations in post-secondary education within the province, outside the province and outside the country with skill and experience which might benefit the universities of Ontario.

The Committee, however, should develop a positive view of such liaison and should undertake links with other bodies only where it can be clearly shown there is benefit to instructional development within the universities of Ontario from such links; it should not become a general service organization for the universities either within the province or outside.

RECOMMENDATION 17

That the Committee be responsible by means of seminars, workshops, conferences, and other activities for endeavouring to bring into the practical teaching situation the lessons learned from instructional development programmes in and outside the province, from research into post-secondary education, and from innovations in higher education in other countries.

In conjunction with this, the Committee should be charged with developing effective communication between itself and the universities and effective communication among the universities themselves.

RECOMMENDATION 18

That the contribution made to the universities of Ontario by the Committee on Teaching and Learning be independently reviewed after a period of five years.

This recommendation recognizes that it will be three years before the universities' own programmes for instructional development get fully under way at a minimum funding level, and two further years will be needed to evaluate the Committee's relationship to them. It is our view that the five-year evaluation should not be regarded as a terminal assessment but rather as an effort to modify and improve the arrangements. We believe that special funds will be needed for instructional development for many years. Periodic evaluation of the fund and of universities' own financial and administrative health may indicate when instructional development will most effectively be absorbed into normal university budgets. That will be a significant year both for instructional development and for the universities of the province.

We believe that these recommendations not only compensate for the deficiencies which OUPID had to face but also offer a practical alternative for the future of Ontario universities. The two tier system which we have proposed is more flexible than either direct university funding or a centralized programme. There are in it all sorts of opportunities to correct imbalances. It is possible for the central Committee to compensate for the gaps left by individual university programmes and it is equally possible for any single university to introduce into its programme those elements which it believes the central Programme has ignored. The system does not deny any individual university the opportunity to develop a special centre for teaching and learning, as we know one, or perhaps two, of the Ontario universities wish to do. With the funds

available from the Ministry of Colleges and Universities augmented by other funds earmarked within the university and monies raised from outside, any Ontario university should be able to establish a substantial research and development centre for teaching and learning in higher education. We do not think that this is the most important feature of our recommendation. That lies in our attempt to stimulate instructional development activity where it matters; that is, in every university. The improvement of teaching is not something which should take place in special centres. It is something which should take place wherever faculty members and students meet in a learning situation. Our recommendations have that prime aim in mind.

SUMMARY OF RECOMMENDATIONS

RECOMMENDATION 1

That the Ministry of Colleges and Universities make available an annual sum of money which is additional to the normal disbursements to universities and which is clearly earmarked for the purposes of instructional development in the universities.

RECOMMENDATION 2

That the sum set aside for instructional development in the universities of Ontario rise over a period of three years to a maximum of 1% of total educational expenditure in the universities. We recommend that in each of the first two years of operation of this new system the sums set aside be ½% and ¾% respectively of total educational expenditure.

RECOMMENDATION 3

That a substantial part of the money set aside for instructional development in the universities come from sources other than those available to meet the normal operational expenses of the universities, and that the operation of an instructional development fund have no negative effects upon BIU funding. Further, that a clear and unambiguous statement be given to universities about the relationship of the instructional development fund to other government monies.

RECOMMENDATION 4

That the fund for instructional development be disbursed directly to the universities of the province on an agreed basis but that a sum equivalent to

$200,000 at 1975 prices be retained to maintain a central committee the concern of which shall primarily be coordination and information dissemination.

RECOMMENDATION 5

That in any one year a maximum sum of money for instructional development be allocated to each university in the province in proportion to its BIU income. The universities should be requested by OCUA to submit each year an outline plan and the claim for an amount of money which should not exceed the maximum allocated to it. As part of its annual brief to the Ontario Council on University Affairs each university should give an account of how such money as was claimed in the previous year was spent on instructional development activity, and render an account of any additional direct expenditure incurred in this area.

RECOMMENDATION 6

That the fund for instructional development not be allocated to any of the undernoted heads of expenditure:

(a) major items of media equipment
(b) computer hardware
(c) other major equipment, instruments or hardware
(d) the introduction of new academic programmes

RECOMMENDATION 7

That the purposes upon which the fund might be expended include:

(a) Release time of faculty members for
  (i) the restructuring of courses and curricula
  (ii) innovation in instruction
  (iii) the improvement of instruction
  (iv) the evaluation of instruction
(b) Evaluation of faculty teaching and student learning
(c) Workshops, seminars, conferences and other activities designed to facilitate planning, innovation, improvement or evaluation of teaching and learning.
(d) Travel of faculty members to other centres or institutions to improve their knowledge or experience of instructional development.
(e) Improvement of communication within the university about teaching innovations and learning improvements.
(f) Sponsorship of visits to the university of instructional development consultants.
(g) Maintenance within the university of faculty counselling programmes, teaching skills programmes, or other means of supporting faculty members in their teaching duties.

(h) *Maintenance within the university of student study counselling programmes or other methods of supporting students with study difficulties.*

(i) *Establishment within the university of programmes for the training of graduate students in teaching methods or for introducing new members of faculty to the problems of university teaching.*

(j) *Expenses involved in communicating the university's own experience in instructional development with other institutions.*

RECOMMENDATION 8

That the sum set aside for the establishment of a central committee be devoted to the establishment of the Ontario Universities Committee on Teaching and Learning which shall be responsible to the Council of Ontario Universities.

RECOMMENDATION 9

That the Committee consist of six full-time faculty members of the universities of Ontario nominated by the universities on a rotational basis and two students drawn from among the names of willing student senators. Each member of the Committee should be eligible for a three-year term of office, at least two members of the committee retiring each year. The Committee should elect from among its own number a chairman who should be supported during his term of office by his own university with full office and secretarial facilities and such abatement of teaching as is required by the duties involved in being chairman. The Committee should also be free for any of the purposes assigned to it to coopt to its number up to two persons especially experienced or qualified in the area of instructional development.

RECOMMENDATION 10

That the Committee on Teaching and Learning meet on the university campuses on a rotational basis and endeavour in any one year to meet on those campuses which are not currently represented among the Committee membership. The meetings of the Committee should be accompanied by open sessions during which members of the Committee might hear the views of university teachers and students on campus.

RECOMMENDATION 11

That the committee appoint to serve it two full-time officers: one an administrator, the other an information officer. Both of these should be appointed on academic-related salary scales, and the information officer at least should have experience as a faculty member in a university.

RECOMMENDATION 12

That the main charge upon this Committee on Teaching and Learning be to keep the universities, the Ontario Council on University Affairs, and the Ministry of Colleges and Universities fully informed of current problems, innovations, and developments in university teaching and learning.

RECOMMENDATION 13

That the Ontario Universities Committee for Teaching and Learning continue a certain level of funding activity in its own right, with a small budget set aside from within its own operational budget to fund projects of a certain nature: (a) those which will augment or supplement university activity and (b) those which are of an interuniversity nature. In such project funding the Committee should identify on the basis of its information sources, those areas which are of long-term priority for the province.

RECOMMENDATION 14

That the Committee should, out of its own operational budget, commission projects which are identified by the Committee itself or by universities as being areas where a concentration of resources could lead to useful information or results.

RECOMMENDATION 15

That the Committee offer to universities a resource service which aims to develop a relevant and practical data base for educational innovation.

RECOMMENDATION 16

That the Committee also be responsible on behalf of the universities of the province for liaison in instructional development with organizations in post-secondary education within the province, outside the province, and outside the country with skill and experience which might benefit the universities of Ontario.

RECOMMENDATION 17

That the Committee be responsible by means of seminars, workshops, conferences and other activities for endeavouring to bring into the practical teaching situation the lessons learned from instructional development programmes in and outside the province, from research into post-secondary education, and from innovations in higher education in other countries.

RECOMMENDATION 18

That the contribution made to the Universities of Ontario by the Committee on Teaching and Learning be independently reviewed after a period of five years.

APPENDIX 1

THE EVALUATION PROCEDURE

"A full evaluation results in a story, supported perhaps by statistics and profiles. It tells what happened. It reveals perceptions and judgments that different groups and individuals hold—obtained, I hope, by objective means. It tells of merits and shortcomings. As a bonus it may offer generalisations for the guidance of subsequent educational programmes." (Stake, 1967)

We were invited to write the short story of OUPID, to identify the most perceptive judgments about it, and to offer the bonus of generalisation for the future. But more than this, we were asked for an additional bonus: specific recommendations for future action.

It is not often that evaluators are asked to recommend: that is usually reserved for the paymaster. We have been aware that drawing up recommendations adds another element of judgment to our task, and while we know that our judgment will be widely scrutinised, we trust that its basis in the perceptions of others will be appreciated.

We owe it to those who read our perceptions and judgments to explain something of the process whereby we collected data and reached some form of conclusion. This account will not be technical, since most of our audience is probably not concerned with minutiae. It is, rather, intended as a general account of how an evaluation can be, at one and the same time, both a systematic and very human activity.

A traditional evaluation is one which stresses "scientific" objectivity and which attempts to measure outcomes against some pre-specified standard or criterion. It will generally employ a range of psychometric methods which were originally designed for well-controlled, large-scale experiments in the applied sciences. It has usually been employed to make definitive statements about "success" or "failure" of a system.

It would be foolish to imagine that OUPID could be evaluated in this way. Even to the casual observer, it was clear that no criteria for "success" had been specified before the Programme was established, and it soon became clear to us, as we embarked upon our task, that the perceptions and judgments of people involved in teaching and learning in the Ontario universities was of more importance in assessing the Programme than any direct "measures" of performance. We were not appointed to test the Programme, but to report how well it was surviving the many tests continually applied to it by so many other people.

We turned, therefore, away from the static models of evaluation to more

dynamic approaches, which stress a greater (though objective) involvement with the system which is to be evaluated. We turned to a model which is well described in the references cited at the end of this appendix, but which is principally characterised by observation methods, interviews with all those who have been concerned with the system, questionnaires and the analysis of documents and background information.

We chose, from the methods available to us, those of interview and the analysis of documents. Direct observation of the Programme was difficult, in the sense that most projects funded by it were unable to incorporate us into their current work outside of term-time, but we did succeed in directly observing some teaching sessions, meetings of the Programme's liaison officers and one meeting of the Interim Committee—and we were participant observers at several meetings of the instructional development committees of one or two universities.

As enumerated in other appendices, we interviewed a large number of people, concerned at all levels in the Programme, and we collected several hundred pertinent documents. By the systematic selection of interview questions and the systematic search of the documents, we were able to isolate the themes which have concerned us, and which appear in the text of our report.

Before the evaluation began, we had isolated, *from the public documents of the Programme alone*, some sixty theme-areas for exploration; and from these we generated specific questions for each individual or group of people. It is important to note that these owe their existence to *published* programme material, since we were establishing a data base which was available to anyone who cared to enquire about the Programme. Our investigation did not begin from a privileged position.

All interviews were recorded in note form immediately after they took place, either by one of the evaluation team or by Mrs. Armstrong. An attempt was made to record events as fully as possible, and to reconstruct as much as possible from the short notes taken during the interviews.

All of the interview material, and all documents, were not only filed complete for sequential reading, but sections of each were filed in an 86-category system, each category referring either to one of our previously isolated themes, or to new categories produced by our interaction with the Programme.

It was this 86-category system which served as the basic data for our analysis, and provided the justification for our conclusions. We were not only able to read carefully the evidence presented to us, but also able, almost literally, to "weigh" that evidence for and against each feature of the Programme.

Although our report is presented in a fairly general form, each of its statements is justified by evidence collected in our files. It is the nature of an evaluation such as this one that the data are not easily reducible to numerical forms: the information of the statements of nearly 500 people and the point of several

hundred more documents. To reproduce all of the evidence for every statement would extend our report by several hundred-fold.

We trust that no one will require that of us, but the data are not intangible—they can be produced in their raw forms if they are needed to persuade the sceptics.

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APPENDIX 3

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R. Martin, chemistry, University of Western Ontario
E. Morzotto, media centre, University of Windsor
B. C. Matthews, president, University of Waterloo
J. R. A. Mayer, philosophy, Brock University
E. J. Mayland, mathematics, York University
W. J. McCallion, dean, adult education, McMaster University
J. McGurran, student, McMaster University
N. McKenzie, associate dean, Glendon College, York University
R. H. McLaren, law, University of Western Ontario
P. Meincke, vice-provost, University of Toronto
T. A. Meininger, history, York University
V. Mendenhall, philosophy, University of Ottawa
T. Miljan, political science, Wilfrid Laurier University
M. A. Miller, chemistry, University of Western Ontario
G. A. B. Moore, audio-visual, University of Guelph
P. Moore, student, McMaster University
M. Moo-Young, chemical engineering, University of Waterloo
J. Morgan, assistant to president, Carleton University
H. G. Morrison, Trent University
D. Mowbray, graduate students association, Carleton University
C. B. Mueller, medical sciences, McMaster University
R. A. Muller, economics, McMaster University

I. Mulvihill, English, Carleton University
G. P. Murray, executive vice-chairman, Ontario Confederation of University Faculty Associations
H. Murray, psychology, University of Western Ontario
J. A. Neill, psychology, University of Guelph
T. E. W. Nind, president, Trent University
C. J. Norman, English, Queen's University
M. K. Oliver, president, Carleton University
R. L. R. Overing, dean, education, York University
R. C. Paehlke, environmental and resource studies, Trent University
J. G. Parr, deputy minister, Ministry of Colleges and Universities
F. Parrett, director, Ontario Universities Programme for Instructional Development
D. J. Parry, physiology, University of Ottawa
Y. Patenaude, continuing education services, University of Ottawa
R. Pearce, mechanical engineering, University of Waterloo
D. Pearson, geology, Laurentian University; member, Interim Committee on Instructional Development
W. S. Peruniak, associate dean, education, Queen's University
R. Peters, psychology, Queen's University
W. G. Pitman, president, Ryerson Polytechnical Institute
P. Platenius, associate dean (studies), Queen's University
J. C. Powell, education, University of Windsor
S. Pyke, counselling and development, York University
B. L. Raktoe, mathematics and statistics, University of Guelph
A. T. Reed, kinanthropology, University of Ottawa
M. Richardson, education, Lakehead University
C. Robinson, chemical engineering, University of Waterloo
A. Schlosser, fine arts, York University
M. Sidran, research assistant, Association of Universities and Colleges of Canada
J. Sigler, political science, Carleton Unversity
D. Sinclair, dean, arts and science, Queen's University
A. A. Smith, civil engineering, McMaster University
F. Smith, geology, University of Toronto
J. P. Smith, vice-president (academic), University of Guelph
L. Smith, information officer, Ontario Confederation of University Faculty Associations
G. Soulis, engineering, University of Waterloo
G. Southall, health sciences office of education, Queen's University
T. Spencer, biochemistry, Queen's University
D. W. L. Sprung, physics, McMaster University

B. P. Squires, physiology, University of Western Ontario; member, Interim Committee on Instructional Development
R. A. Stager, chemical engineering, University of Windsor
L. Strickland, psychology, Carleton University
A. Thomas, continuing education, Ontario Institute for Studies in Education
D. Thomas, biology, University of Windsor
R. H. Tomlinson, chemistry, McMaster University
J. K. Torrance, geography, Carleton University
R. G. Tross, mathematics, University of Ottawa
B. Trotter, academic planning, Queen's University; member Interim Committee on Instructional Development
W. Troyer, consultant to Association of Universities and Colleges of Canada
T. C. Truman, political science, McMaster University
W. K. Tso, civil engineering, McMaster University
R. Vaillancourt, communications and instructional media, University of Ottawa
M. Valeriote, chemistry, Carleton University
G. Vervoort, mathematics, Lakehead University
J. H. T. Wade, mechanical engineering, McMaster University
W. E. Walther, vice-dean, St. Patrick's College, Carleton University
E. Ware, psychology, University of Waterloo
R. Watters, Carleton University
I. G. Weeks, religion, McMaster University
G. Wekerle, environmental studies, York University
J. R. Williams, economics, McMaster University
B. A. Wilson, assistant deputy minister, Ministry of Colleges and Universities
B. A. Wilson, humanities, York University
J. Wilson, nursing, University of Toronto
K. Wood, continuing education, Lakehead University
V. Wood, nursing, University of Western Ontario
D. R. Woods, chemical engineering, McMaster University
A. G. Worthington, psychology, Trent University
J. D. Wright, chemical engineering, McMaster University
J. Yalden, Spanish, Carleton University

TOTAL 228

Total number of other faculty who met in groups with the evaluators	115
Total number of other undergraduate students who met in groups with the evaluators	150
Total number of contacts	493

83

APPENDIX 4

LIST OF GRANTS AWARDED UNTIL JULY 1975

G. Atkinson, University of Waterloo
Study of the way in which teachers are evaluated and the uses made of these evaluations
Study of the role of laboratory work in undergraduate programmes

D. G. Beattie, Queen's University
Development of software for a computer-driven interactive graphics display

W. R. Blackmore, York University
Development of business games

D. A. Brown, Carleton University
Organization of a series of instructional development workshops

A. Bryans, Queen's University
see Squires

B. L. Burkom, Queen's University
Study of new strategies for using teacher effort in drama departments including possible advantages of interuniversity cooperation

J. Campbell, Carleton University
Exploration of cooperative development of a first-year course in psychology

R. A. M. Carlton, University of Guelph
Development of a correspondence course in sociology

C. Chase, University of Toronto
Production of additional televised programmes in Mediaeval history

P. Chisholm, University of Guelph
Conference on modularized instruction in engineering

H. G. Conn, Queen's University
Development of a self-paced course in thermodynamics

J. L. Crammer-Byng, University of Toronto
see Leith

R. Deutsch, York University
Workshop on evaluation of courses, students, programmes and teachers

G. F. Duff, University of Toronto
Comparative study of the merits of different systems of teaching calculus as currently used at the University of Toronto

R. M. Farquhar & J. M. Pitre, University of Toronto
Computer-aided instruction programmes in first year physics

J. W. Flannery, University of Ottawa
Travel grant
D. Fowle and M. Boyer, York University
Development of prototype units for self-paced study of biology
C. Furedy, York University
Study leave
J. Gentleman, University of Waterloo
Development of software to support interactive statistical graphics
D. George, Carleton University
Study leave
A. Golc University of Windsor
Cor erence and workshop on diagnostic testing and remedial work in m thematics
Organization of a remedial mathematics project
M. Griffin and T. Smith, Queen's University
Design of a modular introductory statistics course
T. Hahn and I. J. Bates, Laurentian University
Multi-media music programme for teaching in remote communities
R. Harmsen, D. Lindsay and K. Gunn, Queen's University, and
G. Vervoort, Lakehead University
Preparation of a portable course in holistic systems in biology
M. Hawton, Lakehead University
Experimental integrated programme in first year science and mathematics
B. Hope, Queen's University
Study of the approach taken by British universities to avoid duplication of praduate engineering courses
D. Humphreys, McMaster University
R. Martin, University of Western Ontario
Cooperative development of a self-paced vrst year chemistry course
J. C. Hurd, University of Toronto
Development of a computer programme for teaching Greek
D. G. Ivey, University of Toronto
To attend an international conference in physics education
C. F. Kent, Lakehead University
To offer two mathematics courses based on the Open University's foundation course in mathematics
J. B. Kervin, University of Toronto
Development of a small number of computer-assisted learning programmes in sociology
R. LeBlanc and C. Germain, University of Ottawa
Redesign of a linguistics course

J. A. Leith, Queen's University

J. L. Crammer-Byng, University of Toronto

T. A. Meininger, York University

Development of materials for a history course on comparative studies of revolutions

J. I. Lodge and H. Morrison, Trent University

Experimental programme to improve first year teaching and learning through an interdepartmental diagnostic and learning centre for students and instructors of first-year courses

R. Martin, University of Western Ontario

see Humphreys

D. C. MacRae, Brock University

Study of the basic skills of first-year students

J. Mavalwala, University of Toronto

Travel grant

R. H. McLaren, University of Western Ontario

Study leave

P. Meincke, University of Toronto

Workshop on use of computers in university instruction

T. A. Meininger, York University

see Leith

D. T. Moorcroft, T. D. Gaily and S. D. Rosner, University of Western Ontario

Development of a self-paced programme for three integrated second-year physics courses

G. A. B. Moore, University of Guelph

Evaluation of a course format used to teach introductory French

M. Moo-Young and C. Robinson, University of Waterloo

Development and evaluation of a self-paced programme in chemical engineering

R. A. Muller and J. R. Williams, McMaster University

Development of a computer-based interactive course in economics

H. Murray, University of Western Ontario

Study leave

V. R. Neufeld, McMaster University

see Squires

C. J. Norman, Queen's University

Investigation of literary standards of students

R. C. Paehlke, Trent University

Study of courses dealing with environmental issues, needs for various kinds of materials and possibilities for coordinated development

D. Pearson and P. Blenkinsop, Laurentian University

Seminar on instructional development in the context of Laurentian University

D. Pearson, Laurentian University
Development of an introductory course in earth sciences

R. Peters, Queen's University
Development and evaluation of a personalized system instruction in child psychology

W. E. Rauser, University of Guelph
Preparation of audio-visual materials for a course in plant physiology

A. J. Reed, University of Ottawa
Development of a series of multi-media self-paced lessons in the physiology of physical activity

E. A. Robinson, University of Toronto
(Committee of Deans of Arts and Science)
Workshop to examine the problems of improving university teaching

A. Rothman, University of Toronto
Travel grant to attend teacher training workshop

A. Rothman, University of Toronto
see Squires

F. Smith, University of Toronto
Development of a computer-assisted learning course in geology

T. Spencer, Queen's University
Cooperative production of new teaching materials (audio-visual aids) in biochemistry

B. Squires, University of Western Ontario
Released time to act as course development consultant

B. Squires, University of Western Ontario (Coordinator)
A. Bryans, Queen's University
V. R. Neufeld, McMaster University
A. Rothman, University of Toronto
Cooperative development of instructional units for medical schools

I. Tallan, University of Toronto
Travel grant to study several instructional development centres

G. Tissot, University of Ottawa
Participation in an instructional development training programme

R. G. Tross, University of Ottawa
Development of applications of computers to teaching mathematics

G. Vervoort, Lakehead University
see Harmsen

J. Wilson and K. King, University of Toronto
Production of instructional models on community health care services for students in nursing and medicine
Evaluation of the above project

D. R. Woods, McMaster University
Development of materials for training engineering students in problem-solving

D. R. Woods, T. W. Hoffman and J. D. Wright, McMaster University
Continuation of above grant